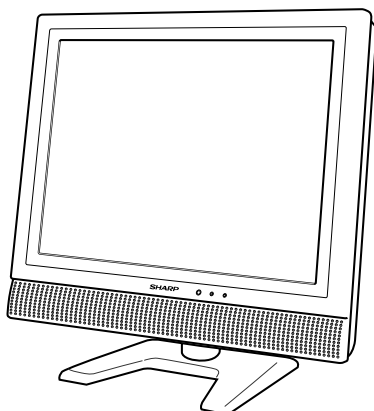


**SHARP**

# SERVICE MANUAL

S23X8LC-15E2E



## LCD COLOUR TELEVISION

MODELS

**LC-15E2E**  
**LC-20E2E**

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

### OUTLINE

The above models are based on the LC-13E1E, LC-15E1E and LC-20E1E. Their desktop stand has been redesigned. This Service Manual covers the modifications only. For other technical data, refer to the Service Manuals for LC-13E1E and LC-15E1E (S72M8LC-13E1E) as well as for LC-20E1E (S72M2LC-20E1E).

### CONTENTS

	Page
• IMPORTANT SERVICE SAFETY PRECAUTION .....	2
• SPECIFICATIONS .....	3
• OPERATION MANUAL .....	4
• DIMENSIONS .....	6
• REMOVING OF MAJOR PARTS (LC-15E2E) .....	7
• REPLACEMENT PARTS LIST .....	8
• PACKING OF THE SET .....	13

**SHARP CORPORATION**

## IMPORTANT SERVICE SAFETY PRECAUTION

- **Service work should be performed only by qualified service technicians who are thoroughly familiar with all safety checks and the servicing guidelines which follow:**

### WARNING

1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC power before servicing.

### LC-15E2E

**CAUTION:** FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE REPLACE ONLY WITH SAME TYPE F1(T1.25AL, 250V), F2(T1.25AL, 250V), F6500 (T1.25AL, 250V) AND F6501 (T1.25AL, 250V) FUSE.

### LC-20E2E

**CAUTION:** FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE REPLACE ONLY WITH SAME TYPE F1(T1.25AL, 250V), F2(T1.25AL, 250V), F6700 (T1.25AL, 250V), F6701 (T1.25AL, 250V), F6702 (T1.25AL, 250V), F6703 (T1.25AL, 250V) AND F6704 (T1.25AL, 250V) FUSE.

### BEFORE RETURNING THE RECEIVER (Fire & Shock Hazard)

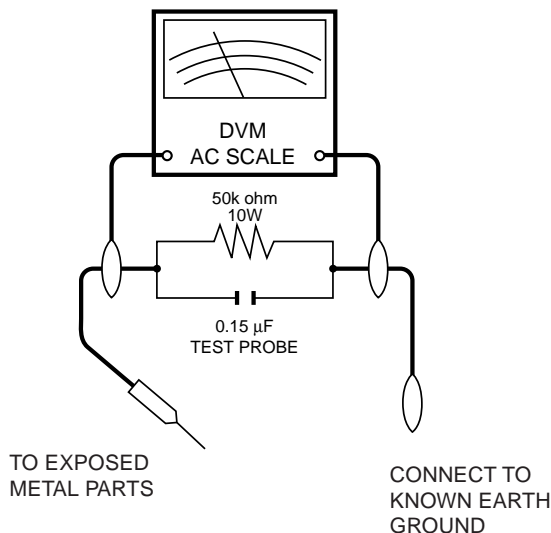
**Before returning the receiver to the user, perform the following safety checks:**

1. Inspect all lead dress to make certain that leads are not pinched, and check that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulation materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.
  - Plug the AC cord directly into a 110~240 volt AC outlet, and connect the DC power cable into the receiver's DC jack. (Do not use an isolation transformer for this test).

- Using two clip leads, connect a 50k ohm, 10 watt resistor paralleled by a 0.15 $\mu$ F capacitor in series with all exposed metal cabinet parts and a known earth ground, such as electrical conduit or electrical ground connected to an earth ground.
- Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity or measure the AC voltage drop across the resistor.
- Connect the resistor connection to all exposed metal parts having a return to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.

All checks must be repeated with the AC cord plug connection reversed. (If necessary, a nonpolarized adaptor plug must be used only for the purpose of completing these checks.)

Any reading of 0.75V peak (this corresponds to 0.5 mA. peak AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the monitor to the owner.



### SAFETY NOTICE

Many electrical and mechanical parts in LCD television have special safety-related characteristics.

These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.

Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠"

and shaded areas in the **Replacement Parts Lists and Schematic Diagrams.**

For continued protection, replacement parts must be identical to those used in the original circuit.

The use of a substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire or other hazards.

# SPECIFICATIONS

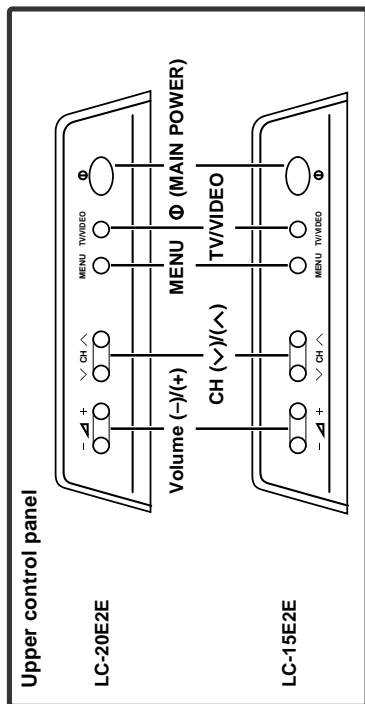
Items		15" LCD COLOUR TV, Model: LC-15E2E	20" LCD COLOUR TV, Model: LC-20E2E
LCD panel		Advanced Super View & BLACK TFT LCD	
LCD panel size		15"	19.7"
Number of dots		921,600 dots	
Video colour system		PAL/SECAM/NTSC	
TV Function	TV-Standard (CCIR)	B/G, I, D/K, L	
	TV-Tuning System	Auto preset 200 ch.	
	STEREO/BILINGUAL	NICAM, IGR	
	AUTO PRESET	Yes	
	CATV	~Hyper Band	
Brightness		430 cd/m <sup>2</sup>	
Lamp life		60,000 hours	
Viewing angles		H: 170° V: 170°	
Audio amplifier		2.1 W × 2	2.5 W × 2
Speakers		3 × 7.5 cm 2 pcs.	4 × 7 cm 2 pcs.
Terminals	AV-IN 1	RGB	
	AV-IN 2	S-VIDEO, VIDEO, AUDIO	
	OUT	AUDIO	
	Antenna	DIN	
	Headphones	3.5 mm ø jack (Rear)	
OSD language		English/German/French/Spanish/Italian/Swedish/Dutch	
Power requirement		DC 12 V, AC 110 V – 240 V, 50/60 Hz	DC 13 V, AC 110 V – 240 V, 50/60 Hz
Weight		4.9 kg	7.9 kg
Accessories		Operation Manual, Remote Control, Batteries, AC adapter, AC cord, Cable clamps	

***Specifications are subject to change without prior notice.***

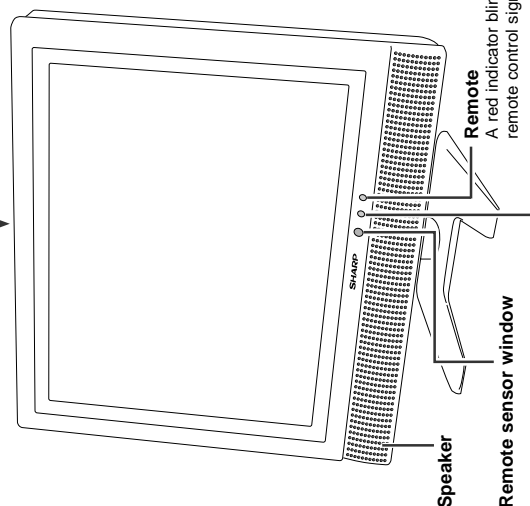
# OPERATION MANUAL

## Part Names of Main Unit

### Controls



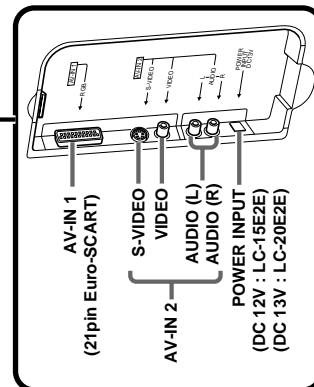
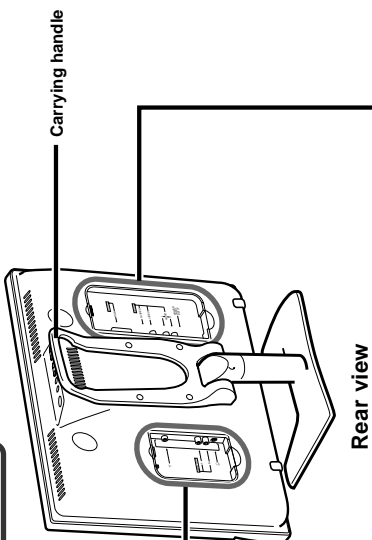
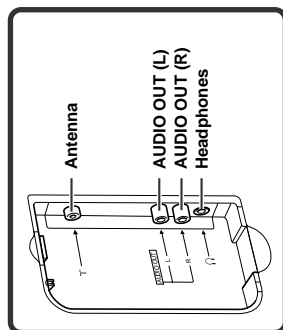
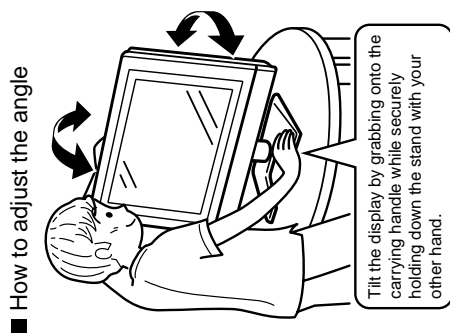
To change the vertical angle of the LCD TV set, tilt the screen up to 2.5 degrees forward or 10 degrees backward. The TV set can also be rotated 25 degrees to right and left. Please adjust the angle so that the TV set can be watched most comfortably.



### Note:

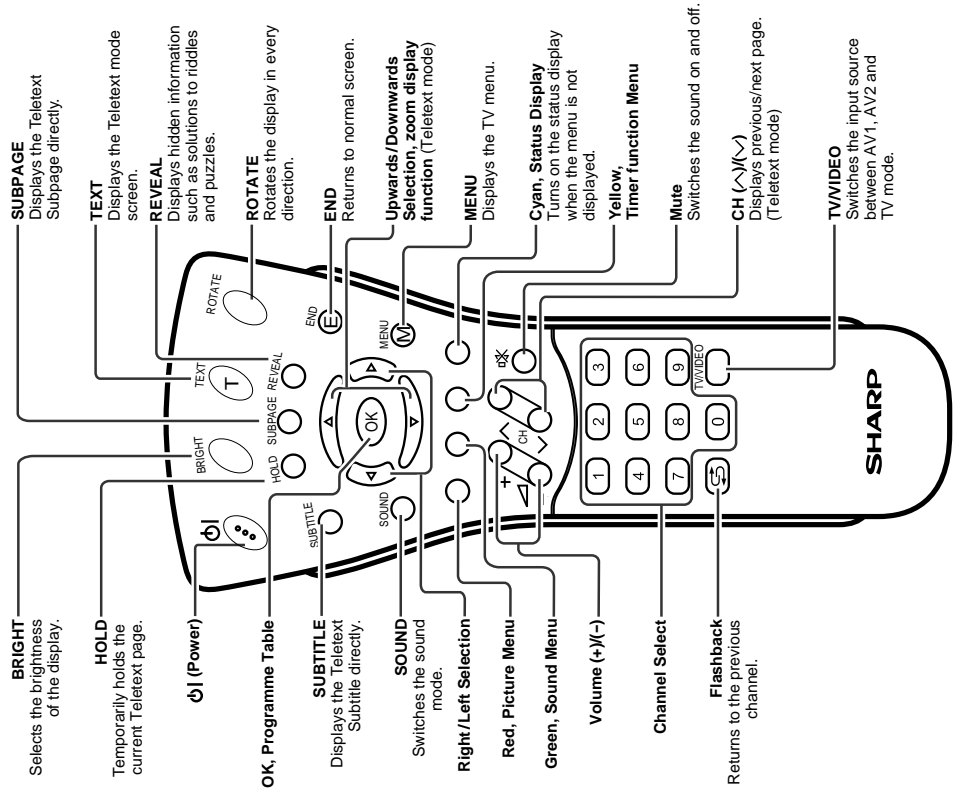
- **TV/VIDEO**, **CH**( $\nabla$ )( $\wedge$ ), **Volume** ( $-$ )( $+$ ) and **MENU** on the main unit have the same functions as the same buttons on the remote control. Fundamentally, this operation manual provides a description based on operation using the remote control.
- The LC-15E2E and LC-20E2E have different external dimensions and the positions where the names of the buttons are displayed also differ but the same operating procedures are followed for all two models.

### Terminals





## Part Names of Remote Control

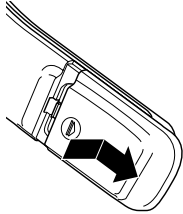


## Preparation

### Installing Batteries in the Remote Control

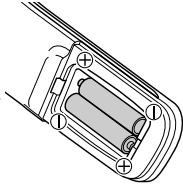
Before using the LCD TV set for the first time, install the two R-03 ("AAA" size, UM/SUM-4) batteries supplied in the remote control. When the batteries become depleted and the remote control fails to operate, replace the batteries with new R-03 ("AAA" size, UM/SUM-4) batteries.

**1** Open the battery cover.



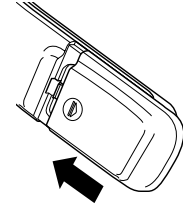
- Slide the cover while pressing the (V) part.

**2** Insert two R-03 ("AAA" size, UM/SUM-4) batteries.



- Position the positive and negative ends of the batteries as indicated in the compartment.

**3** Replace the battery cover.



- Engaging the lower claw with the remote control, close the cover.

#### Caution!

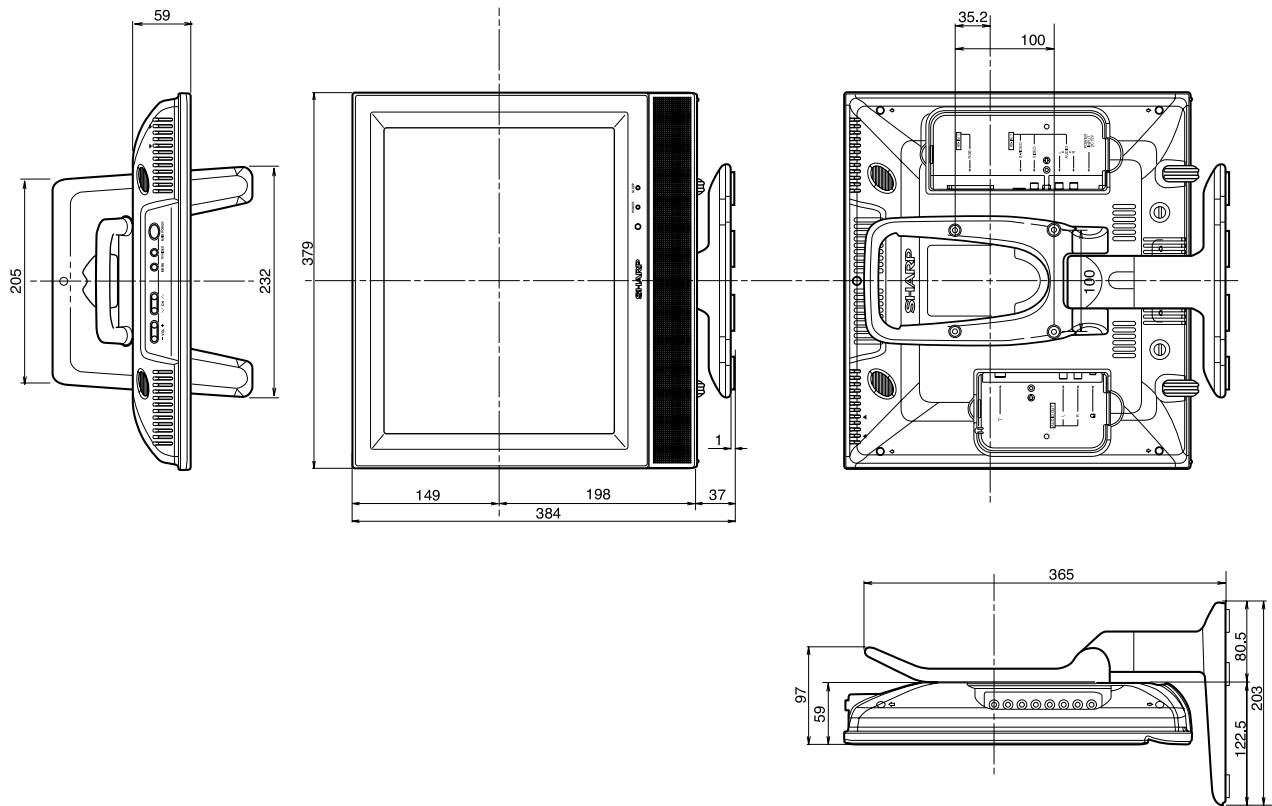
#### Precautions regarding batteries

- Improper use of batteries can result in a leakage of chemicals and/or explosion. Be sure to follow the instructions below.
- Place batteries with their terminals corresponding to the (+) and (-) indications.
- Different types of batteries have different characteristics. Do not mix batteries of different types.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries and/or cause old batteries to leak chemicals.
- Remove batteries as soon as they are depleted. Chemicals that leak from batteries can cause a rash. If chemical leakage is found, wipe it off with a cloth.
- The batteries supplied with the product may have a shorter life expectancy due to storage conditions.
- If the remote control is not to be used for an extended period of time, remove the batteries from the remote control.

# DIMENSIONS

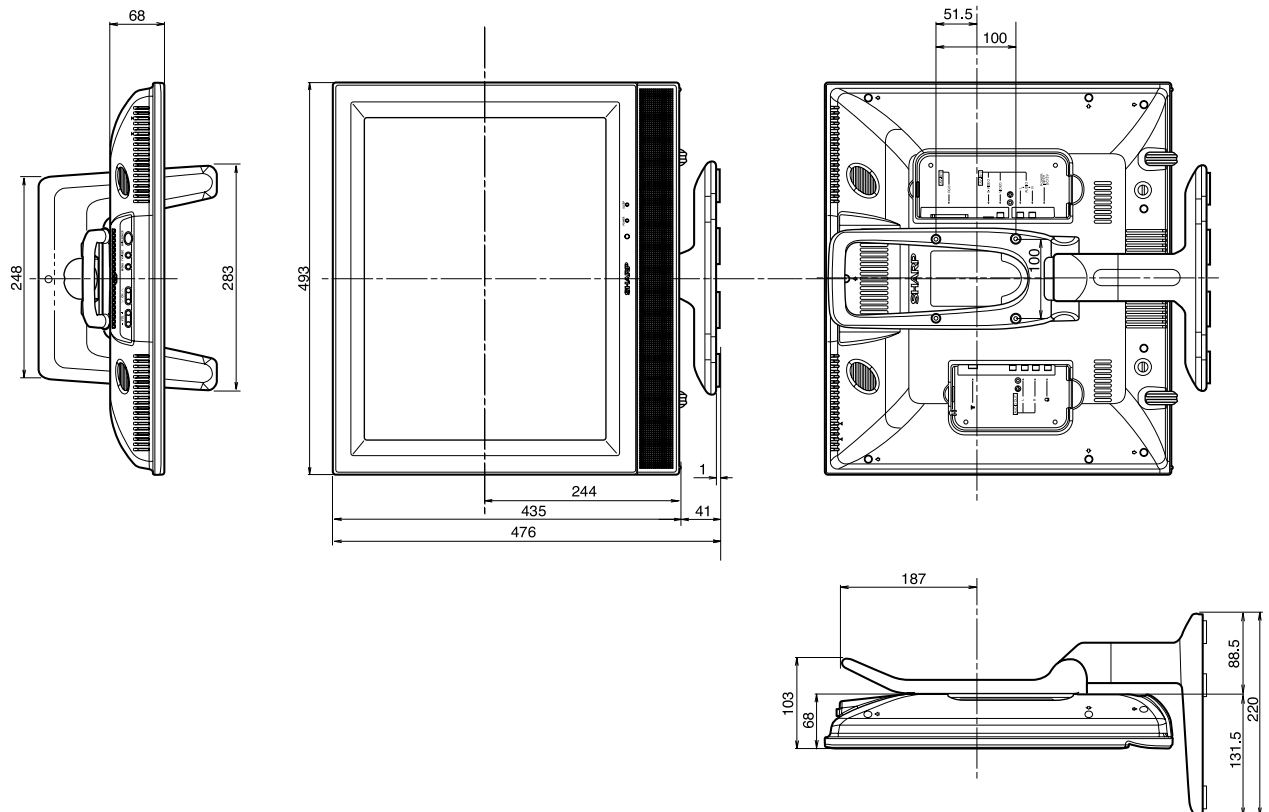
## ■ LC-15E2E

Unit: mm



## ■ LC-20E2E

Unit: mm

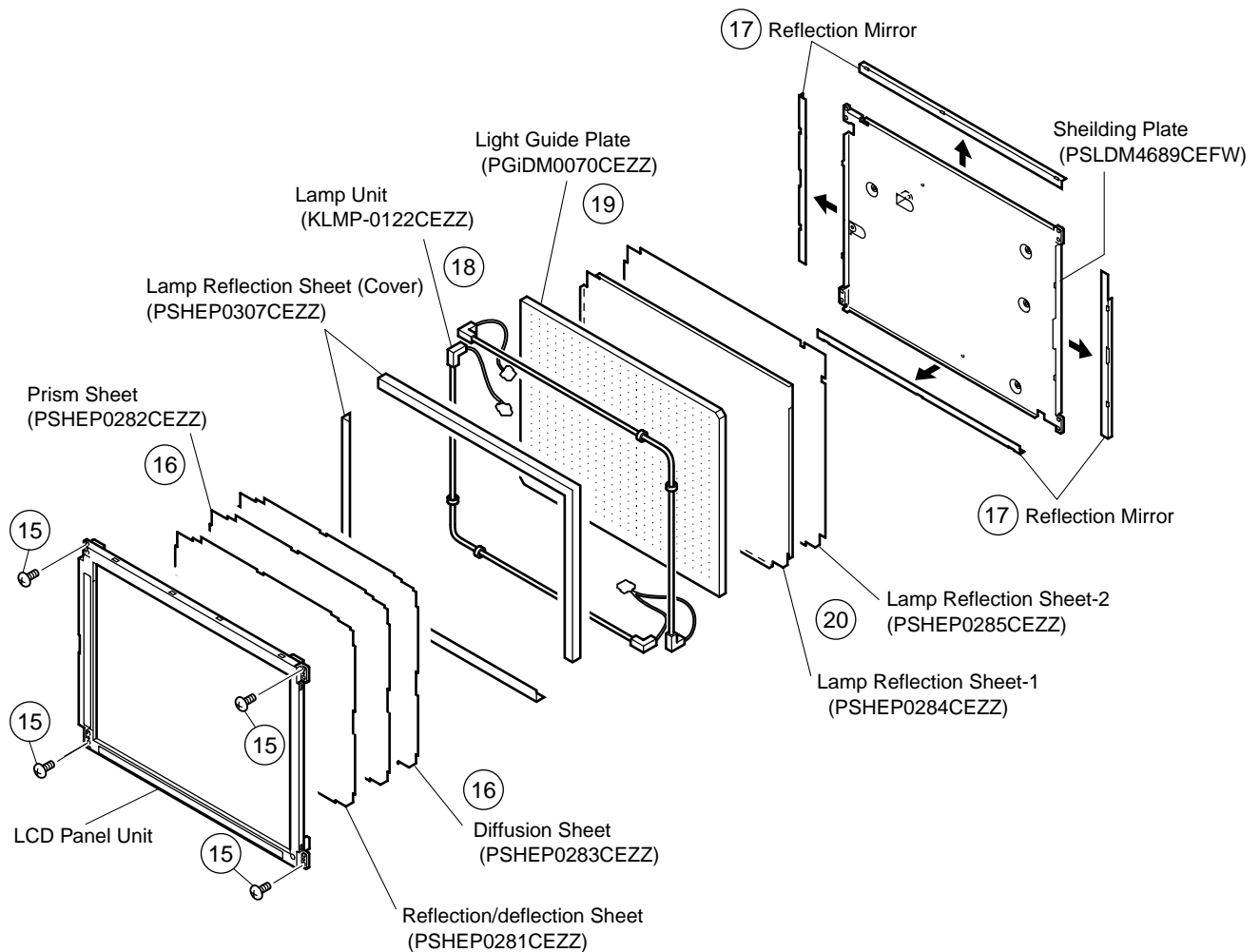


## REMOVING OF MAJOR PARTS (LC-15E2E)

- **Precautions in handling the LCD panels**


1. Work in a clean room (with humidities below 50%).
2. Be sure to wear an anti-static armband.
3. Handle the panels on an electro conductive mat.
4. Be careful not to fall, shake and shock the panels.

15. Remove the LCD panel unit fixing screws (4 pcs.) .
16. Detach the two diffusion sheet, prism sheet and reflection/deflection sheet.
17. Detach the four reflection mirrors.
18. Remove the lamp unit.
19. Detach the lamp guide plate.
20. Detach the two lamp reflection sheets.



# PARTS LIST

## PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual; electrical components having such features are identified by  and shaded areas in the Replacement Parts Lists and Schematic Diagrams. The use of a substitute replacement part which does not have the same safety characteristic as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

### "HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

- |                 |                |
|-----------------|----------------|
| 1. MODEL NUMBER | 2. REF. NO.    |
| 3. PART NO.     | 4. DESCRIPTION |

★ MARK: SPARE PARTS-DELIVERY SECTION

Ref. No.	Part No.	★	Description	Code
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## PRINTED WIRING BOARD ASSEMBLIES

### (NOT REPLACEMENT ITEM)

#### LC-15E2E

DUNTKB152WE14	—	Tuner Unit	—
DUNTKB153WE14	—	Inverter Unit	—
DUNTKB155WE14	—	R/C, LED Unit	—
DUNTKB156WE14	—	Operation Unit	—

#### LC-20E2E

DUNTKB152WE15	—	Tuner Unit	—
DUNTKB155WE15	—	R/C, LED Unit	—
DUNTKB156WE15	—	Operation Unit	—

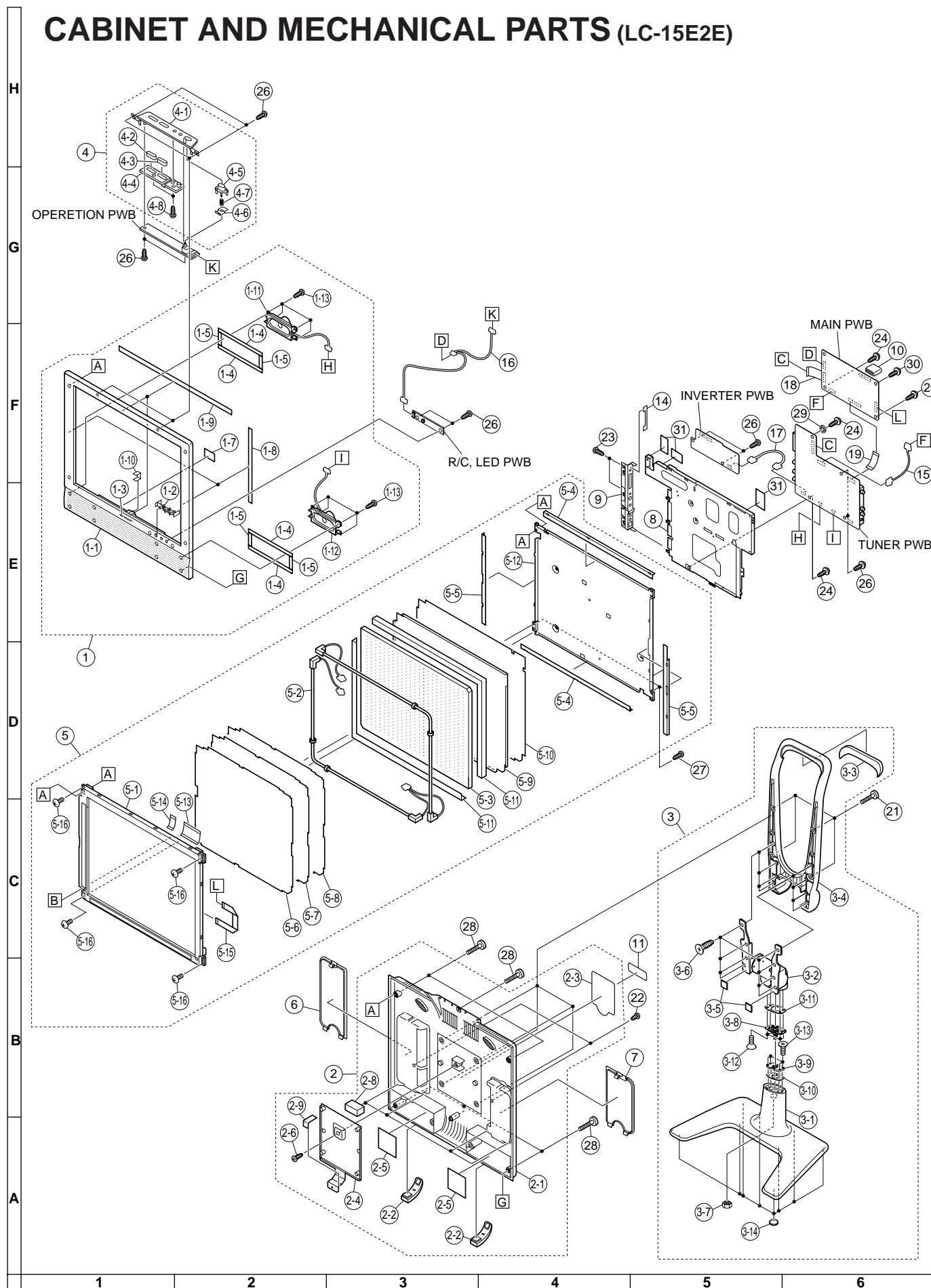
## CABINET AND MECHANICAL PARTS

### MODEL : LC-15E2E

1	CCABAA089WJ03	S	Cabinet A Ass'y	BH
1-1	<i>Not Available</i>	—	Cabinet A	—
1-2	GCOVA2020CEZZ	J	R/C, LED Cover	AF
1-3	<i>Not Available</i>	—	"SHARP", Badge	—
1-4	PSPAGA034WJZZ	J	Spacer, x4	AB
1-5	PSPAGA035WJZZ	J	Spacer, x4	AB
1-7	PSPAHA073WJZZ	J	Spacer, x1	AB
1-8	PSPAHA051WJZZ	J	Spacer, x2	AC
1-9	PSPAHA050WJZZ	J	Spacer, x2	AC
1-10	QEARZ0047CEZZ	J	Earth Angle	AC
1-11	VSP7530PB588B	J	Speaker(L)	AS
1-12	VSP7530PB598B	J	Speaker(R)	AS
1-13	XEBSD30P08000	J	Screw, x8	AA
2	CCABBA055WJ02	S	Cabinet B Ass'y	BH
2-1	<i>Not Available</i>	—	Cabinet B	—
2-2	GLEGGA008WJSA	J	Leg, x2	AF
2-3	HiNDPA363WJSA	S	Model Label	AK
2-4	LANGT9061CEFW	J	Reinforcement Angle	BD
2-5	PSPAGA043WJZZ	J	Spacer, x2	AC
2-6	XEBSD30P08000	J	Screw, x1	AA
2-8	PMLT-A039WJZZ	J	Light Shielding Spacer, x4	AB
2-9	PSPAHA060WJKZ	J	Spacer, x1	AB
3	CDAi-A031WJ06	S	Stand Ass'y	BG
3-1	GDai-A031WJSA	J	Stand Base	AX
3-2	<i>Not Available</i>	—	Stand Joint	—

Ref. No.	Part No.	★	Description	Code
3-3	GCOVA1945CESA	J	Stand Grip	AK
3-4	JHNDP0105CESA	J	Stand Handle	AW
3-5	PSPAZ0415CEZZ	J	Spacer, x2	AB
3-6	XESSN40P10000	J	Screw, x8	AB
3-7	LX-NZ3185CEFE	J	Nut, x1	AC
3-8	MHNG-3051CEFW	J	Swivel Hinge	AW
3-9	LANGG1196CEFW	J	Swivel Base	AF
3-10	LANGG1198CEFW	J	Fixing Metal, Spacer-A	AE
3-11	LANGG1199CEFW	J	Fixing Metal, Spacer-B	AD
3-12	XUSSD40P20000	J	Screw, x4	AB
3-13	XESSE40P14000	J	Screw, x4	AA
3-14	GLEGG9093CEZZ	J	Leg Cushion, x8	AC
4	CCOVAA126WJ01	J	Top Cover Ass'y	AR
4-1	<i>Not Available</i>	—	Top Cover	—
4-2	GCOVA1943CEKA	J	Button Cover(VOL)	AD
4-3	GCOVA1943CEKB	J	Button Cover(CH)	AD
4-4	JBTN-A012WJKA	J	Operation Button	AE
4-5	JBTN-2076CEKA	J	Power Button	AE
4-6	LHLDZA027WJKZ	J	Power Button Holder	AE
4-7	MSPRCA014WJFW	J	Power Button Spring	AB
4-8	XEBSD30P08000	J	Screw, x2	AA
5	<i>Not Available</i>	—	15" LCD Panel Unit Ass'y	—
5-1	RLCDA013WJN1	J	15" LCD Panel Unit	CZ
5-2	KLMP-0122CEZZ	J	Lamp Unit	BD
5-3	PGIDM0070CEZZ	J	Light Guide Panel	BA
5-4	PMiR-0294CEZZ	J	Reflection Mirror, x2	AG
5-5	PMiR-0295CEZZ	J	Reflection Mirror, x2	AF
5-6	PSHEP0281CEZZ	J	Reflection/Deflection Sheet	BE
5-7	PSHEP0282CEZZ	J	Prism Sheet	AV
5-8	PSHEP0283CEZZ	J	Diffusion Sheet	AL
5-9	PSHEP0284CEZZ	J	Lamp Reflection Sheet-1	AG
5-10	PSHEP0285CEZZ	J	Lamp Reflection Sheet-2	AG
5-11	PSHEP0307CEZZ	J	Lamp Reflection Sheet (Cover), x2	AC
5-12	PSLDM4689CEFW	J	Shielding Plate	AR
5-13	QCNW-6064CEZZ	J	Connecting Cord (LS)	AD
5-14	QCNW-6065CEZZ	J	Connecting Cord (LK)	AC
5-15	QCNW-A069WJZZ	J	Connecting Cord (LG)	AF
5-16	XBBSD30P05000	J	Screw, x4	AA
6	GCOVAA082WJKA	J	Terminal Cover(S)	AH
7	GCOVAA083WJKA	J	Terminal Cover(L)	AK
8	GCOVA2116CEKA	J	Chassis Frame	AP
9	GCOVA2118CEKA	J	Chassis Frame Cover	AG
10	RCORFA009WJZZ	J	Core	AH
11	<i>Not Available</i>	—	Serial No. Label	—
14	LANGK0782CEFW	J	Fixing Metal	AF
15	QCNW-A302WJZZ	J	Connecting Cord(MB)	AG
16	QCNW-A305WJZZ	J	Connecting Cord(MS/MR)	AH
17	QCNW-A385WJZZ	J	Connecting Cord(VE)	AE
18	QCNW-A386WJZZ	J	Connecting Cord(MA)	AD
19	QCNW-A300WJZZ	J	Connecting Cord(MT)	AC
21	LX-BZ3442CEFF	J	Screw, x4	AB
22	XBBSF30P05000	J	Screw, x2	AB
23	XBBSF30P08000	J	Screw, x2	AA
24	XBPSN30P09JS0	J	Screw, x3	AB
25	XEBSD30P06000	J	Screw, x1	AA
26	XEBSD30P08000	J	Screw, x10	AA
27	XEBSD30P12000	J	Screw, x2	AA
28	XEBSF30P20000	J	Screw, x6	AB
29	XWHJZ32-05080	J	Washer, x1	AB
30	XEBSD30P06000	J	Screw, x1	AA
31	PSPAHA077WJZZ	J	Spacer, x3	AB

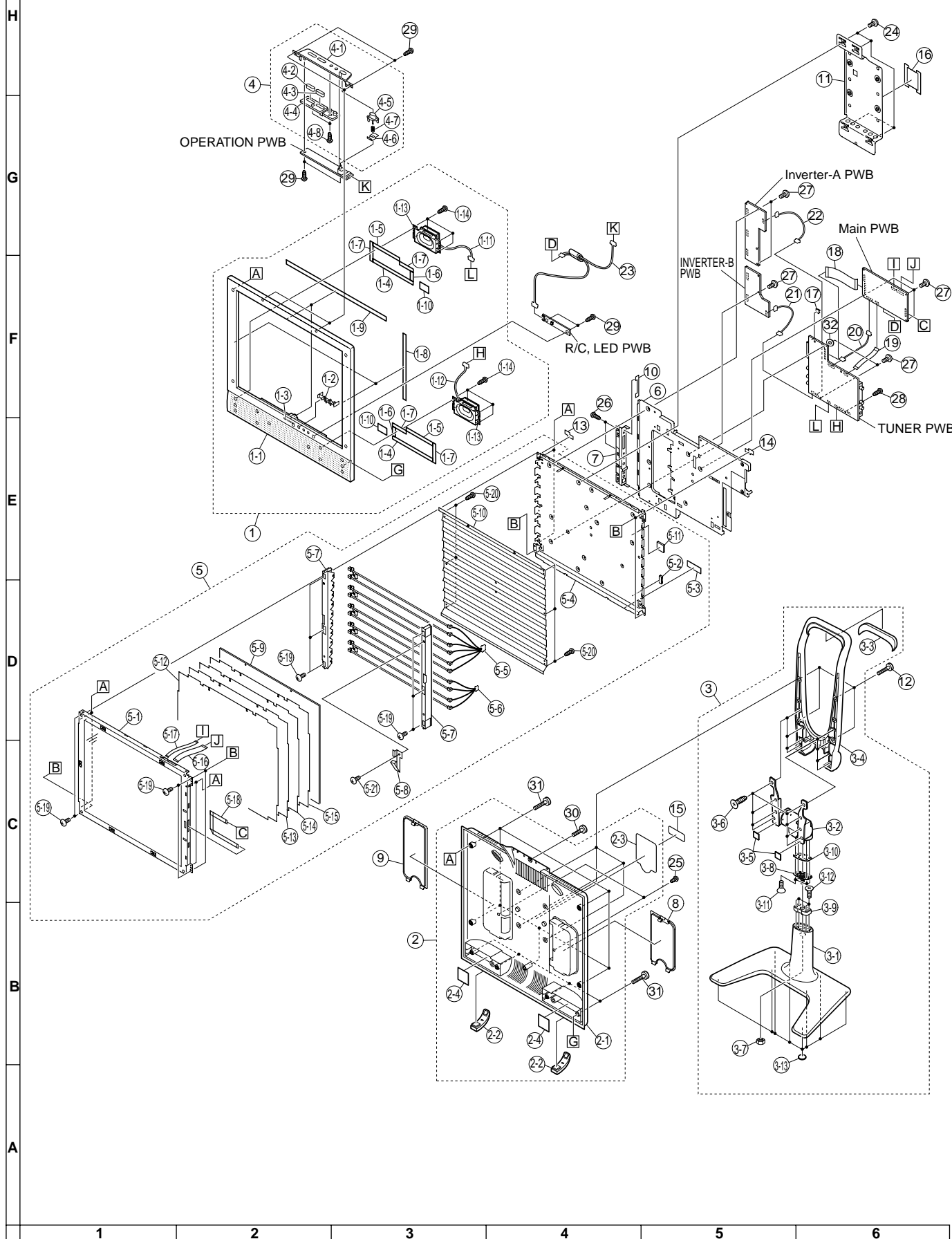
# CABINET AND MECHANICAL PARTS (LC-15E2E)



Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>CABINET AND MECHANICAL PARTS</b>									
<b>MODEL : LC-20E2E</b>									
1	CCABAA052WJ03	S	Cabinet A Ass'y	BM	6	GCOVA2117CEKA	J	Chassis Frame	AU
1-1	<i>Not Available</i>	—	Cabinet A	—	7	GCOVA2118CEKA	J	Chassis Frame Cover	AG
1-2	GCOVA2020CEZZ	J	R/C, LED Cover	AF	8	GCOVAA069WJKA	J	Terminal Cover(S)	AL
1-3	<i>Not Available</i>	—	"SHARP", Badge	—	9	GCOVAA070WJKA	J	Terminal Cover(L)	AK
1-4	PSPAGA027WJZZ	J	Spacer, x2	AC	10	LANGK0782CEFW	J	Fixing Angle	AF
1-5	PSPAGA028WJZZ	J	Spacer, x2	AB	11	LANGT9032CEFW	J	Reinforcement Angle	AR
1-6	PSPAGA029WJZZ	J	Spacer, x2	AB	12	LX-BZ3442CEFF	J	Screw, x4	AB
1-7	PSPAGA030WJUZ	J	Spacer, x4	ES	13	PMLT-0404CEZZ	J	Light Shielding Spacer(R)	AD
1-8	PSPAHA040WJZZ	J	Spacer, x2	AD	14	PMLT-0405CEZZ	J	Light Shielding Spacer(L)	AD
1-9	PSPAHA041WJZZ	J	Spacer, x2	AD	15	<i>Not Available</i>	—	Serial No. Label	—
1-10	PSPAH0678CEZZ	J	Spacer, x2	AA	16	PSLDM012WJZZ	J	Shield	AD
1-11	QCNW-A544WJZZ	J	Connecting Cord	AD	17	LHLDW1025TAZZ	J	Wire Holder, x1	AB
1-12	QCNW-A545WJZZ	J	Connecting Cord	AD	18	QCNW-6058CEZZ	J	Connecting Cord(MA)	AE
1-13	VSP7040PB578S	J	Speaker, x2	AR	19	QCNW-A314WJZZ	J	Connecting Cord(MT)	AD
1-14	XETSD40P12000	J	Screw, x8	AB	20	QCNW-A486WJZZ	J	Connecting Cord(MB)	AG
2	CCABBA029WJ02	S	Cabinet B Ass'y	BH	21	QCNW-A307WJZZ	J	Connecting Cord(VF)	AD
2-1	<i>Not Available</i>	—	Cabinet B	—	22	QCNW-A487WJZZ	J	Connecting Cord(VE)	AE
2-2	GLEGGA007WJSA	J	Leg, x2	AG	23	QCNW-A527WJZZ	J	Connecting Cord(MS/MR)	AQ
2-3	HINDPA364WJSA	S	Model Label	AK	24	XBBSD40P06000	J	Screw, x4	AA
2-4	PSPAGA043WJZZ	J	Spacer, x2	AC	25	XBBSF30P06000	J	Screw, x2	AA
3	CDai-A030WJ05	S	Stand Ass'y	BL	26	XEBSD30P08000	J	Screw, x2	AA
3-1	GDai-A030WJSA	J	Stand Base	BB	27	XBPSD30P10JS0	J	Screw, x8	AA
3-2	<i>Not Available</i>	—	Stand Joint	—	28	XBBSF30P08000	J	Screw, x1	AA
3-3	GCOVA1945CESA	J	Stand Grip	AK	29	XEBSD30P12000	J	Screw, x6	AA
3-4	JHNDP0103CESA	J	Stand Handle	AX	30	XEBSF40P12000	J	Screw, x1	AB
3-5	PSPAZ0415CEZZ	J	Spacer, x2	AB	31	XEBSF40P20000	J	Screw, x9	AB
3-6	XESSN40P10000	J	Screw, x8	AB	32	XWHJZ32-05080	J	Washer, x1	AB
3-7	LX-NZA001WJFE	J	Nut, x1	AD					
3-8	MHNG-A004WJFW	J	Swivel Hinge	AU					
3-9	LANGGA004WJFW	J	Fixing Metal	AE					
3-10	LANGFA007WJFW	J	Spacer for Swivel Hinge	AD					
3-11	XUSSD40P20000	J	Screw, x4	AB					
3-12	XESSE40P14000	J	Screw, x4	AA					
3-13	GLEGG9093CEZZ	J	Leg Cushion, x8	AC					
4	CCOVAA067WJ01	J	Top Cover Ass'y	AR					
4-1	<i>Not Available</i>	—	Top Cover	—					
4-2	GCOVA1943CEKA	J	Button Cover(VOL)	AD					
4-3	GCOVA1943CEKB	J	Button Cover(CH)	AD					
4-4	JBTN-A012WJKA	J	Operation Button	AE					
4-5	JBTN-2076CEKA	J	Power Button	AE					
4-6	LHLDZA027WJKZ	J	Power Button Holder	AE					
4-7	MSPRCA014WJFW	J	Power Button Spring	AB					
4-8	XEBSD30P08000	J	Screw, x2	AA					
5	<i>Not Available</i>	—	20" LCD Panel Unit Ass'y	—					
5-1	RLCDA014WJN1	J	20" LCD Panel Unit	DM					
5-2	LHLDW1173CEZZ	J	Wire Holder	AD					
5-3	PMLT-0402CEZZ	J	Spacer	AC					
5-4	PSLDM4685CEFW	J	Back Shield Panel	AX					
△ 5-5	KLMP-0124CEZZ	J	Lamp Unit-A	BH					
△ 5-6	KLMP-0125CEZZ	J	Lamp Unit-B	BD					
5-7	LHLDZ2176CEZZ	J	Lamp Fixing Holder	AL					
5-8	MSPRP1220CEFW	J	ITO Earth Spring	AC					
5-9	PCOVU0107CEZZ	J	Diffusion Panel	AV					
5-10	PMiR-0296CEZZ	J	Reflection Mirror	AX					
5-11	PMLT-0377CEZZ	J	Spacer	AD					
5-12	PSHEP0286CEZZ	J	Reflection/Deflection Sheet	BP					
5-13	PSHEP0287CEZZ	J	Prism Sheet	BC					
5-14	PSHEP0288CEZZ	J	Diffusion Sheet	AQ					
5-15	PSHEP0289CEZZ	J	ITO Sheet	AY					
5-16	QCNW-6054CEZZ	J	Connecting Cord(LS)	AD					
5-17	QCNW-6055CEZZ	J	Connecting Cord(LK)	AD					
5-18	QCNW-6056CEZZ	J	Connecting Cord(LG)	AF					
5-19	XBBSD30P08000	J	Screw, x10	AA					
5-20	XEBSD20P05000	J	Screw, x6	AA					
5-21	XEBSD30P08000	J	Screw, x1	AA					



# CABINET AND MECHANICAL PARTS (LC-20E2E)



Ref. No.	Part No.	★	Description	Code
----------	----------	---	-------------	------

## SUPPLIED ACCESSORIES

△	LHLDWA002WJSA	J	Cable Clamp, x2	AD
	QACCKA004WJPZ	S	AC Cord	AK
			(LC-15E2E/20E2E)	
△	QACCB0016TAZZ	J	AC Cord	AV
			(LC-15E2E <sub>(K)</sub> /20E2E <sub>(K)</sub> )	
	RRMCGA074WJSA	J	Infrared R/C Unit	AU
	TiNS-A650WJZZ	S	Operation Manual	BB
△	UADP-A007WJPZ	J	AC Adapter	BG
			(LC-15E2E/E <sub>(K)</sub> )	
△	UADP-0241CEPZ	J	AC Adapter	BL
			(LC-20E2E/E <sub>(K)</sub> )	
	TGAN-1688CEN1	J	Guarantee Card	AN
			(LC-15E2E <sub>(K)</sub> /20E2E <sub>(K)</sub> )	

Ref. No.	Part No.	★	Description	Code
----------	----------	---	-------------	------

## PACKING PARTS (NOT REPLACEMENT ITEM)

### LC-15E2E

SPAKCA565WJZZ	—	Packing Case	—
SPAKFA200WJZZ	—	Buffer Material (Accessories)	—
SPAKPA127WJZZ	—	Wrapping Paper	—
SPAKXA209WJZZ	—	Buffer Material	—
SSAKA0160CEZZ	—	Polyethylene Bag	—
TLABKA002WJZZ	—	No. Label	—

### LC-20E2E

SPAKCA566WJZZ	—	Packing Case	—
SPAKFA201WJZZ	—	Buffer Material (Accessories)	—
SPAKPA128WJZZ	—	Wrapping Paper	—
SPAKXA210WJZZ	—	Buffer Material	—
SSAKA0160CEZZ	—	Polyethylene Bag	—
TLABKA002WJZZ	—	No. Label	—

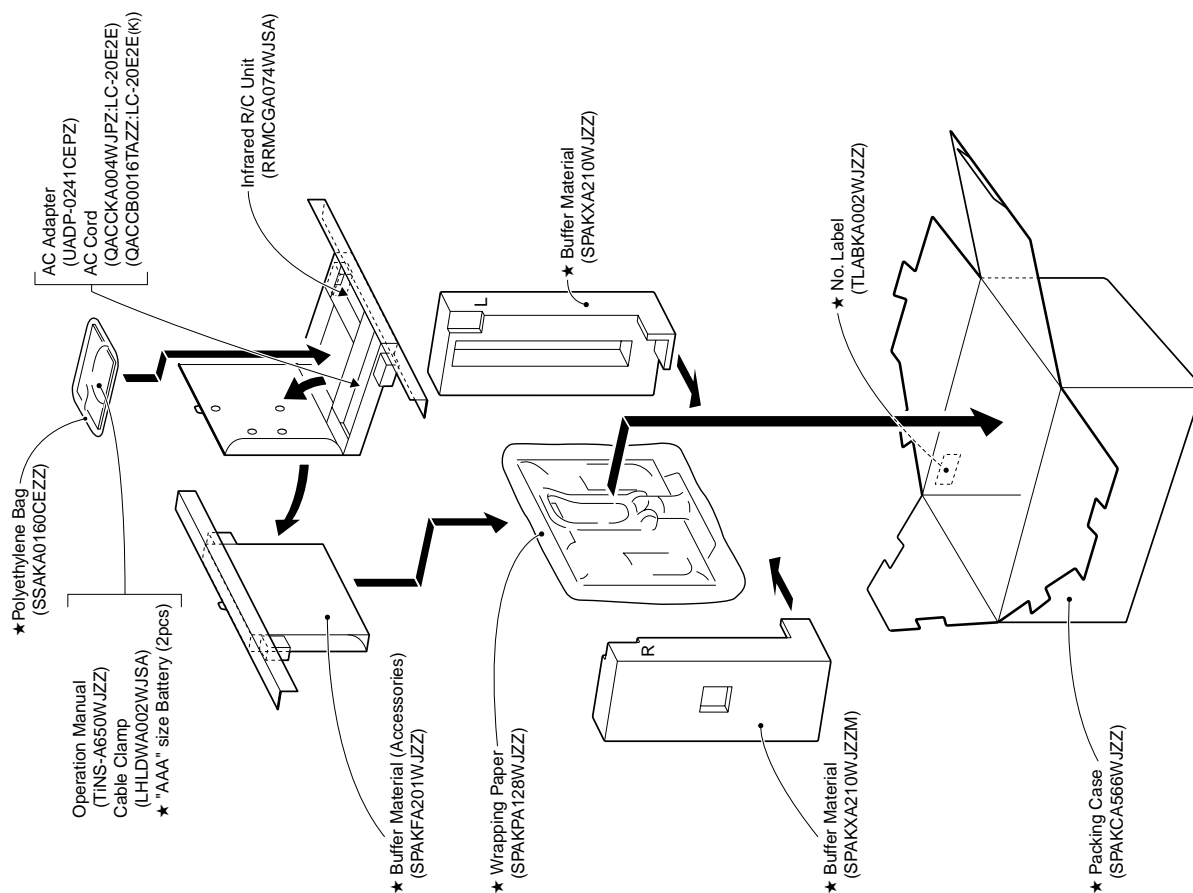
## SERVICE JIGS (USE FOR SERVICING)

QCNW-A369WJZZ	J	Extension Cable 50-pin Main (SC2001)-Tuner (SC3100)	AT
QCNW-A370WJZZ	J	Extension Cable 13-pin Main (SC2002)-Tuner (SC1602)	AT
QCNW-A371WJZZ	J	Extension Cable 11-pin Main (P3702)-Tuner (P1903)	AW

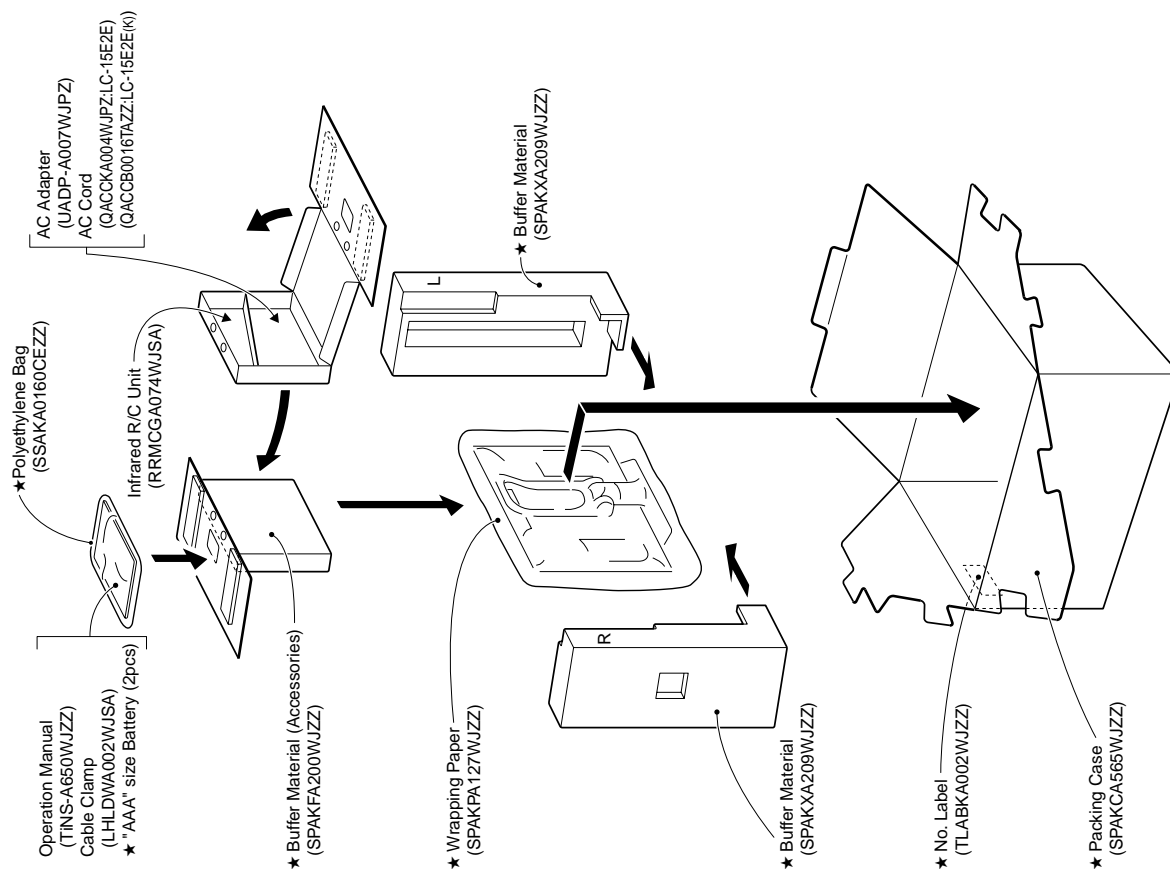


# PACKING OF THE SET

## MODELS:LC-20E2E



## MODELS:LC-15E2E



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Apr. 2003 Printed in Japan

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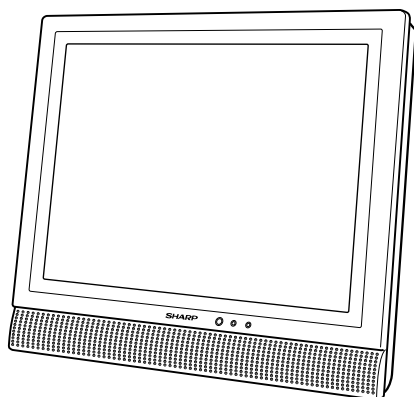
Design : Japan  
Production : SEES

MI. KG

SHARP CORPORATION  
AV Systems Group  
Quality & Reliability Control Center  
Yaita, Tochigi 329-2193, Japan

**SHARP****SERVICE MANUAL**

S72M8LC-13E1E

**LCD COLOUR TELEVISION****MODELS LC-13E1E  
LC-15E1E**

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

**CONTENTS**

	Page
• IMPORTANT SERVICE SAFETY PRECAUTION .....	2
• SPECIFICATIONS .....	3
• OPERATION MANUAL .....	4
• DIMENSIONS .....	6
• REMOVING OF MAJOR PARTS .....	8
• ADJUSTING PROCEDURE OF EACH SECTION .....	12
• TROUBLE SHOOTING TABLE .....	15
• CHASSIS LAYOUT .....	21
• BLOCK DIAGRAM .....	22
• OVERALL WIRING DIAGRAM .....	24
• DESCRIPTION OF SCHEMATIC DIAGRAM .....	28
• SCHEMATIC DIAGRAM .....	29
• PRINTED WIRING BOARD ASSEMBLIES .....	71
• REPLACEMENT PARTS LIST .....	82
• PACKING OF THE SET .....	97

## IMPORTANT SERVICE SAFETY PRECAUTION

- **Service work should be performed only by qualified service technicians who are thoroughly familiar with all safety checks and the servicing guidelines which follow:**

### WARNING

1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC power before servicing.

**CAUTION:** FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE REPLACE ONLY WITH SAME TYPE F1(1.25A, 250V), F2(1.25A, 250V), F6500 (1.25A, 250V) AND F6501 (1.25A, 250V) FUSE.

### BEFORE RETURNING THE RECEIVER (Fire & Shock Hazard)

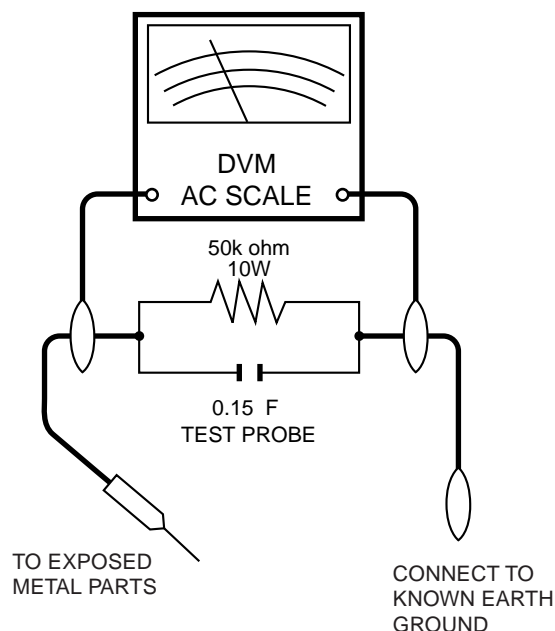
**Before returning the receiver to the user, perform the following safety checks:**

1. Inspect all lead dress to make certain that leads are not pinched, and check that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulation materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.
  - Plug the AC cord directly into a 110~240 volt AC outlet, and connect the DC power cable into the receiver's DC jack. (Do not use an isolation transformer for this test).
  - Using two clip leads, connect a 50k ohm, 10 watt resistor paralleled by a 0.15 $\mu$ F capacitor in series with all exposed metal cabinet parts and a known earth ground, such as electrical conduit or electrical ground connected to an earth ground.

- Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity or measure the AC voltage drop across the resistor.
- Connect the resistor connection to all exposed metal parts having a return to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.

All checks must be repeated with the AC cord plug connection reversed. (If necessary, a nonpolarized adaptor plug must be used only for the purpose of completing these checks.)

Any reading of 0.75V peak (this corresponds to 0.5 milliamp. peak AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the monitor to the owner.



### SAFETY NOTICE

Many electrical and mechanical parts in LCD television have special safety-related characteristics.

These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.

Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠"

and shaded areas in the **Replacement Parts Lists** and **Schematic Diagrams**.

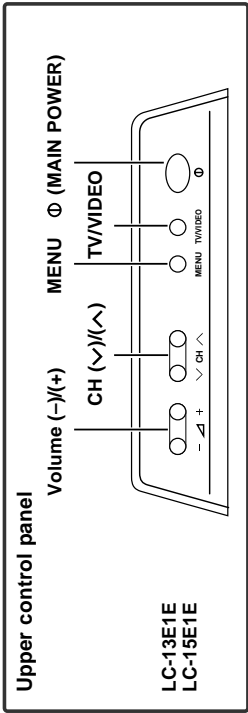
For continued protection, replacement parts must be identical to those used in the original circuit.

The use of a substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire or other hazards.

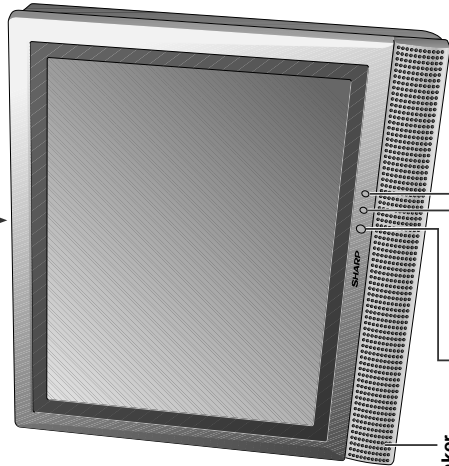
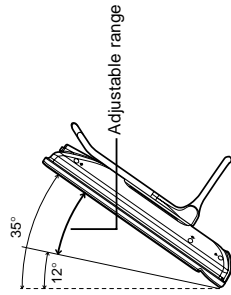
# SPECIFICATIONS

Items		13" LCD COLOUR TV, Model:LC-13E1E	15" LCD COLOUR TV, Model:LC-15E1E
LCD panel		Advanced Super View & BLACK TFT LCD	
LCD panel size		13"	15"
Number of dots		921,600 dots	
Video colour system		PAL/SECAM/NTSC	
TV Function	TV-Standard (CCIR)	B/G, I, D/K, L	
	TV-Tuning System	Auto preset 200 ch.	
	STEREO/BILINGUAL	NICAM, IGR	
	AUTO PRESET	Yes	
	CATV	~Hyper Band	
Brightness		430 cd/m <sup>2</sup>	
Lamp life		60,000 hours	
Viewing angles		H: 170° V: 170°	
Audio amplifier		2.1 W × 2	
Speakers		3× 7.5 cm 2 pcs.	
Terminals	AV-IN 1	RGB	
	AV-IN 2	S-VIDEO, VIDEO, AUDIO	
	OUT	AUDIO	
	Antenna	DIN	
	Headphones	3.5 mm ø jack (Rear)	
OSD language		English/German/French/Spanish/Italian/Swedish/Dutch	
Power requirement		DC12V, AC110V – 240V, 50/60Hz	
Weight		3.8 kg	4.5 kg
Accessories		Operation Manual, Remote Control, Batteries, AC adapter, AC cord, Cable clamp	

- As a part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.



The screen can be adjusted backwards to an angle between 12 degrees and 35 degrees. The screen cannot be set up straight. When changing the angle, make sure to hold the stand and adjust the screen to the best viewable angle.



Speaker

Remote sensor window

Remote sensor indicator

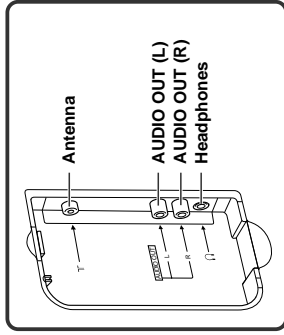
A red indicator blinks when the TV set receives the remote control signal.

POWER/STANDBY indicator

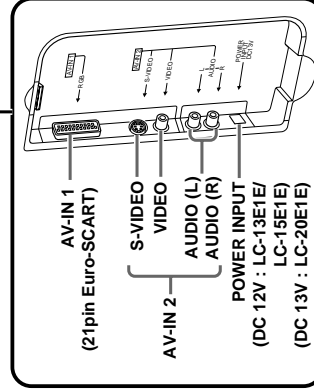
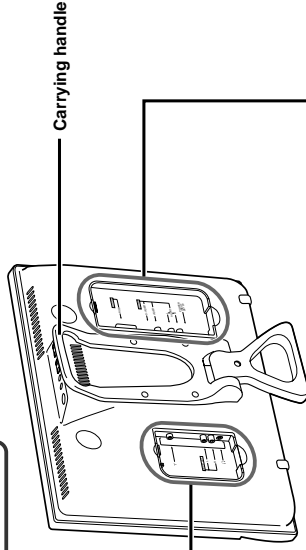
A green indicator lights when the power is on and a red indicator lights when in the standby mode (the indicator will not light when the main power is off).

**Note:**

- TV/VIDEO, CH(<)/(>), Volume (-)/(+) and MENU on the main unit have the same functions as the same buttons on the remote control. Fundamentally, this operation manual provides a description based on operation using the remote control.
- The LC-13E1E, LC-15E1E have different external dimensions and the positions where the names of the buttons are displayed also differ but the same operating procedures are followed for all three models.



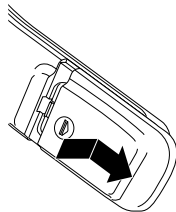
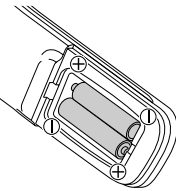
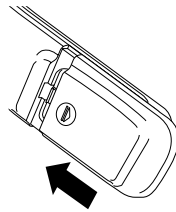
Rear view



# OPERATION MANUAL

## Installing Batteries in the Remote Control

Before using the LCD TV set for the first time, install the two R-03 ("AAA" size, UM/SUM-4) batteries supplied in the remote control. When the batteries become depleted and the remote control fails to operate, replace the batteries with new R-03 ("AAA" size, UM/SUM-4) batteries.

- 1** Open the battery cover.  

- 2** Insert two R-03 ("AAA" size, UM/SUM-4) batteries.  

- 3** Replace the battery cover.  


■ Slide the cover while pressing the (V) part.

■ Position the positive and negative ends of the batteries as indicated in the compartment.

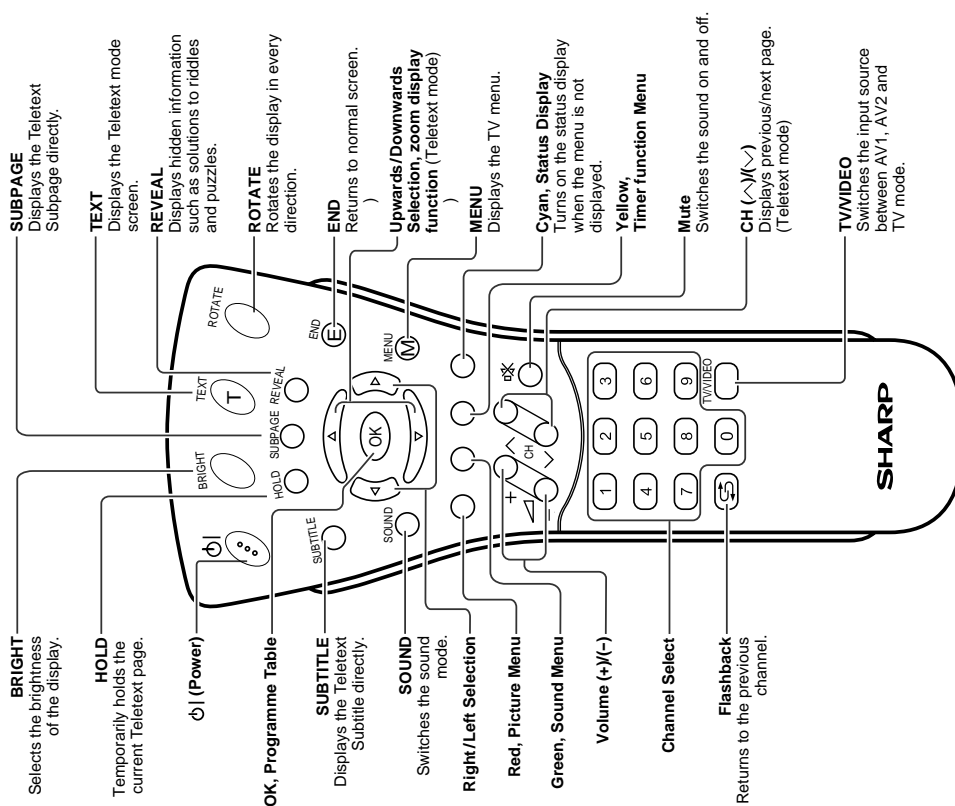
■ Engaging the lower claw with the remote control, close the cover.

### Caution!

#### Precautions regarding batteries

■ Improper use of batteries can result in a leakage of chemicals and/or explosion. Be sure to follow the instructions below.

- Place batteries with their terminals corresponding to the (+) and (-) indications.
- Different types of batteries have different characteristics. Do not mix batteries of different types.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries and/or cause old batteries to leak chemicals.
- Remove batteries as soon as they are depleted. Chemicals that leak from batteries can cause a rash. If chemical leakage is found, wipe it off with a cloth.
- The batteries supplied with the product may have a shorter life expectancy due to storage conditions.
- If the remote control is not to be used for an extended period of time, remove the batteries from the remote control.

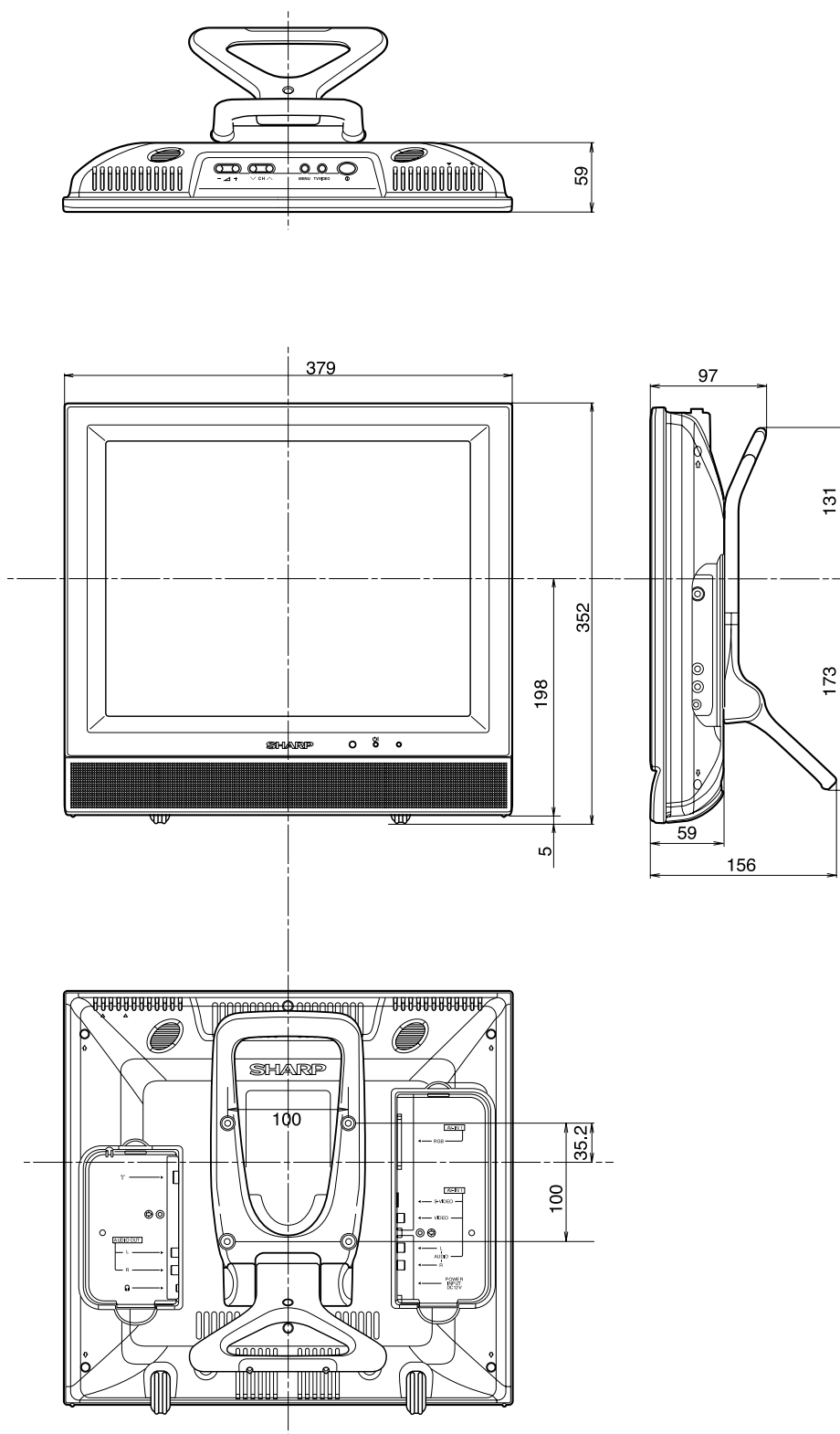






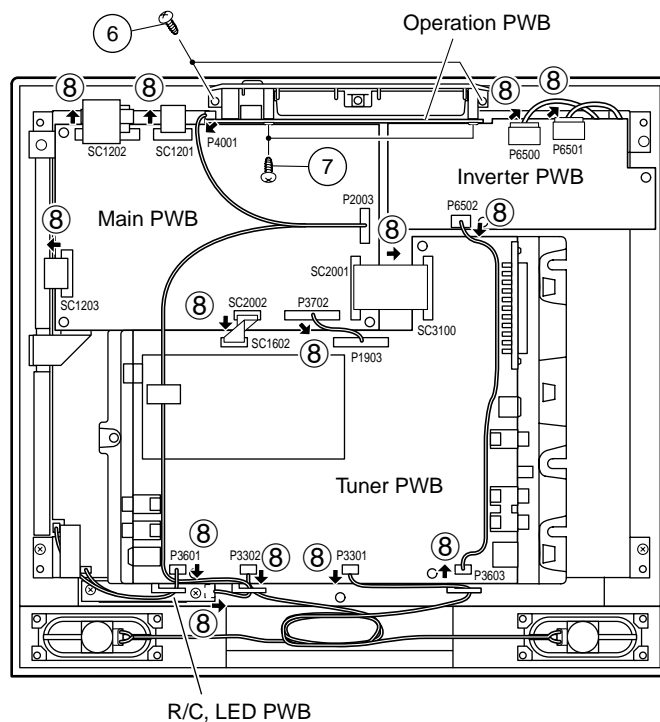
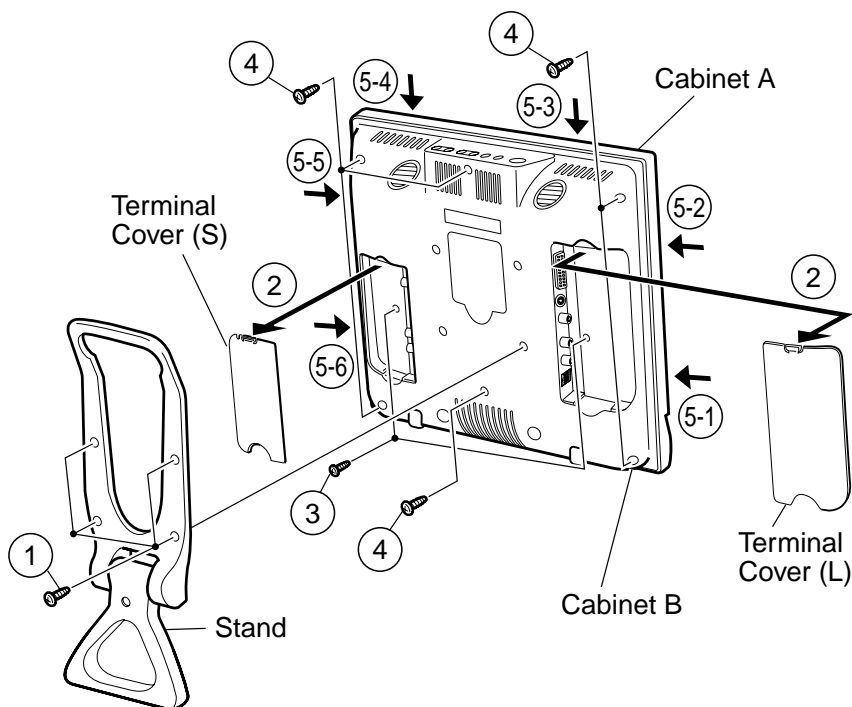
■ LC-15E1E

Unit: mm

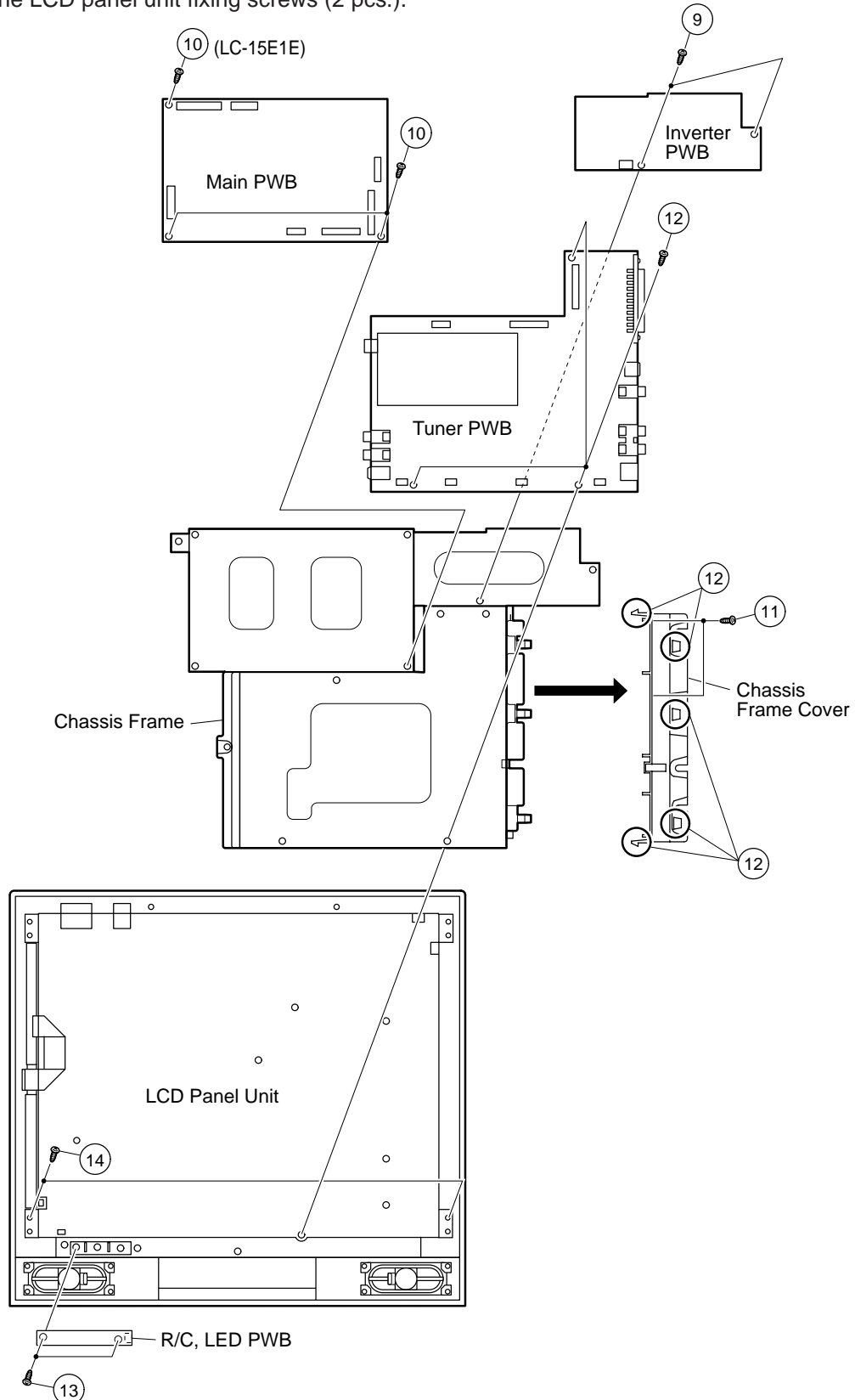


## REMOVING OF MAJOR PARTS

1. Remove the table stand fixing screws (4 pcs.).
2. Remove the two terminal covers.
3. Remove the terminal section fixing screws (2 pcs.).
4. Remove the cabinet B fixing screws (6 pcs.).
5. Cabinet A is opened in order of (5-1) to (5-6), and detach the Cabinet B.
6. Remove the top cover fixing screws (2 pcs.).
7. Remove the operation PWB fixing screws (2 pcs.).
8. Detach the connector from each PWB.



9. Remove the inverter PWB fixing screws (2 pcs.).
10. Remove the main PWB fixing screws (2 pcs.)(LC-13E1E).
10. Remove the main PWB fixing screws (3 pcs.)(LC-15E1E).
11. Remove the 21-pin terminal fixing screws (2 pcs.).
12. Remove the tuner PWB fixing screws (3 pcs.) and detach the chassis frame cover fixing hooks.
13. Remove the R/C, LED PWB fixing screws (2 pcs.).
14. Remove the LCD panel unit fixing screws (2 pcs.).



● **Precautions in handling the LCD panels**

1. Work in a clean room (with humidities below 50%).
2. Be sure to wear an anti-static armband.
3. Handle the panels on an electroconductive mat.
4. Be careful not to fall, shake and shock the panels.

15. Remove the LCD panel unit fixing screws (2 pcs.) (\* LC-13E1E).

15. Remove the LCD panel unit fixing screws (4 pcs.) (LC-15E1E).

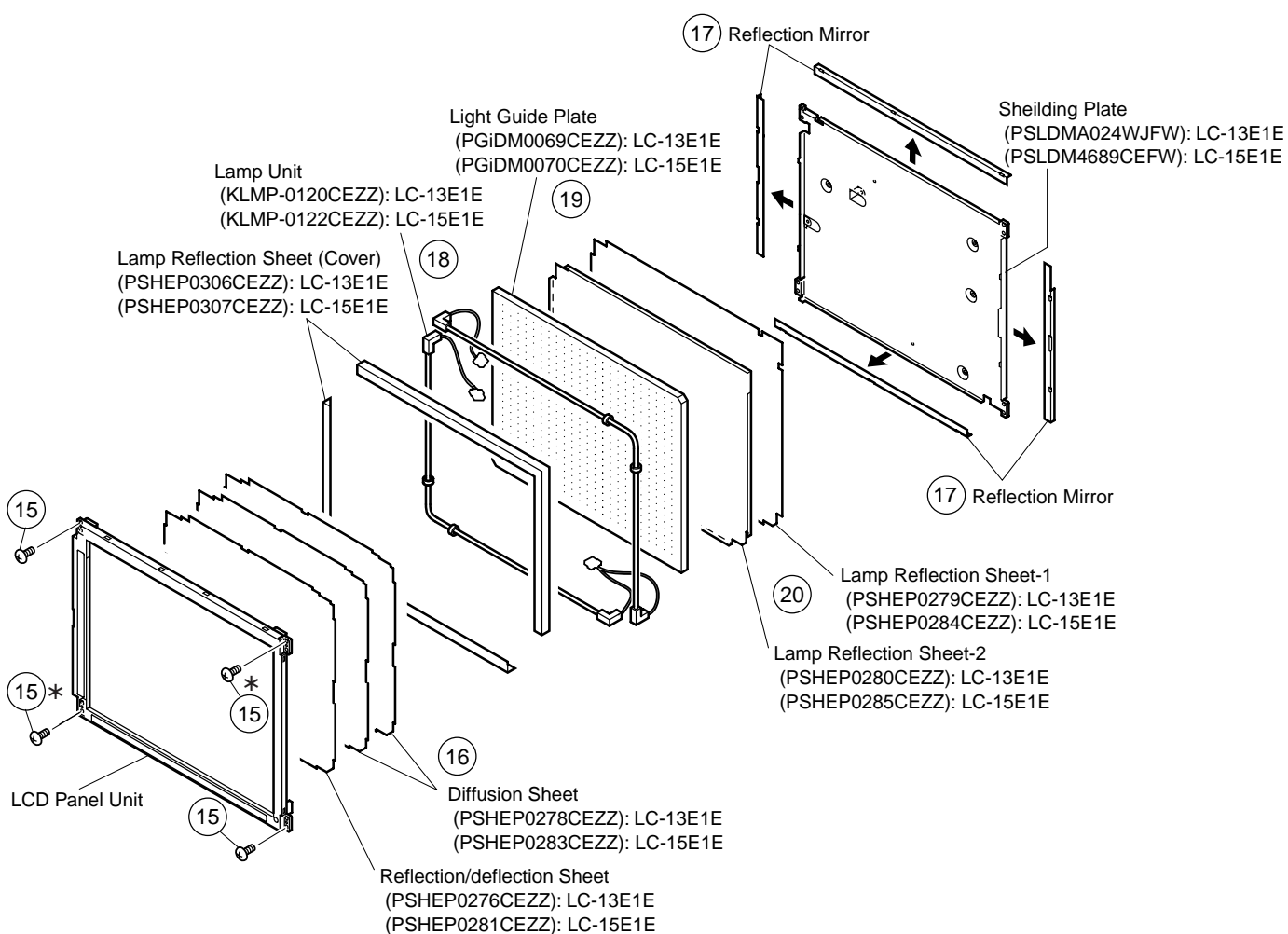
16. Detach the two diffusion sheets and reflection/deflection sheet.

17. Detach the four reflection mirrors.

18. Remove the lamp unit.

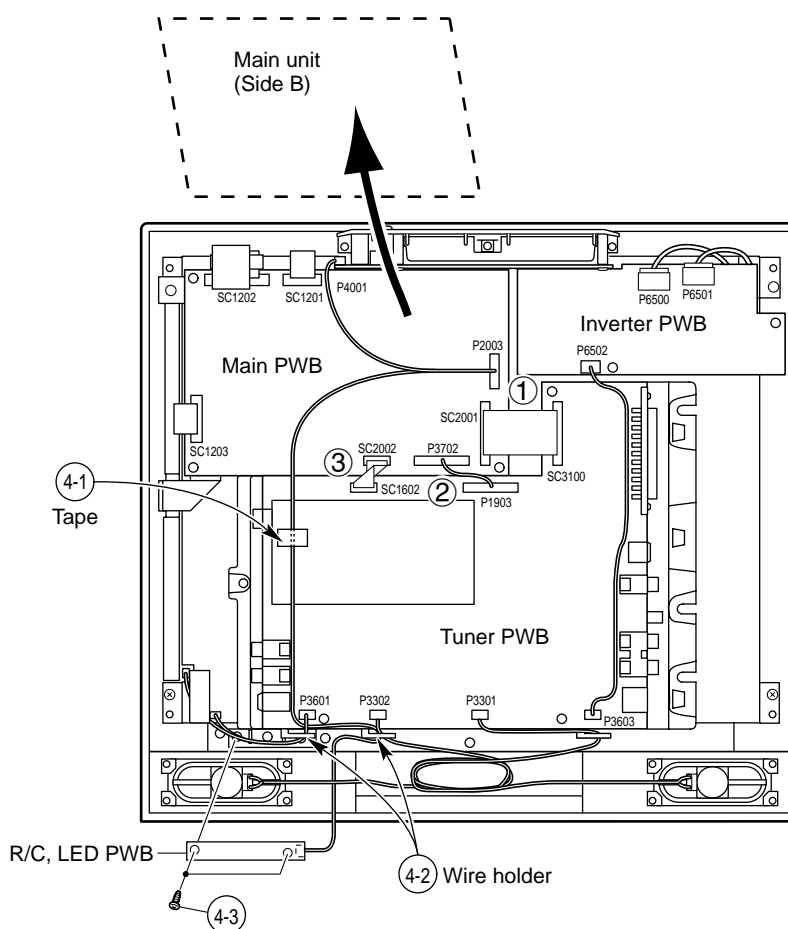
19. Detach the lamp guide plate.

20. Detach the two lamp reflection sheets.



● **Precautions at the time of the side B(back) service of main unit.**

1. Remove only SC2001 of the FFC for connection between Main unit(SC2001) and Tuner unit(SC3100), and connect the extended cable (QCNW-A369WJZZ) for service.
2. Remove only P3702 of the FFC for connection between Main unit(P3702) and Tuner unit(P1903), and connect the extended cable (QCNW-A371WJZZ) for service.
3. Remove only SC2002 of the FFC for connection between Main unit(SC2002) and Tuner unit(SC1602), and connect the extended cable (QCNW-A370WJZZ) for service.
4. Remove the R/C, LED unit.
  - 4-1. Peel off the tape.
  - 4-2. Remove a lead from a wire holder.
  - 4-3. Remove the R/C, LED unit fixing screws(2 pcs.).
5. Remove the main unit fixing screws(3 pcs.), a substrate is reversed.



# ADJUSTING PROCEDURE OF EACH SECTION

The best adjustment is made before shipping. If any position deviation is found or after part replace is performed, adjust as follows.

## Preparation for adjustments

Use the dedicated AC adaptor or stable DC power supply.

AC adaptor: UADP-A007WJPZ

DC power supply: 12V 4.0A

## 1. Adjusting procedure

- Checker adjustment  
Power ON (Adjustment processing mode) → +B adjustment → Counter bias adjustment → TAMP (Contrast) adjustment  
→ White balance adjustment

## 2. Entering the adjustment processing mode

There are the following two methods.

- Setting the pin (81)(KEY4) or pin (82)(KEY5) of IC2001 (microprocessor) to GND, turn on the power.
- A "POWER" key is made on with pushing an "TV/VIDEO" and "MENU" keys at the same time. (K of the inspection process mode is displayed by the upper left of the image plane.) → Next, "CH (✓)" and "VOL (-)" keys are pushed at the same time. (It becomes the image plane of the adjustment process mode.).....When it is canceled, it is made to turn it off. (Even off in the "MAIN POWER" key, off with R/C are good.)

## 3. Key operation in the adjustment process mode

- The receiving channel UP/DOWN is performed with the "CH (∧)/(✓)" keys.  
One push ... The UP/DOWN tuning is performed per channel.  
Continuous push ... The UP/DOWN search is performed until a next receivable station is found.
- Various adjustments  
The adjustment is performed for each item by the "MENU", "Menu cursor", "CH (∧)/(✓)" or "VOL (+)/(-)" keys (LCD TV set and remote control).
- Adjustment item is chosen with the Menu cursor upward/downward keys.
- The adjustment item makes a toggle operation with the "MENU" key input. (Next item)  
If the "MENU" key is input while the bottom item is selected, it moves to the top item on the next page.
- Press the auto preset button on the remote controller in the adjustment process mode, and the top item of the next page will show up regardless of which item appears now.  
Page 1 → Page 2 → ... → Page 24 → Page 1
- Press the manual memory button on the remote controller in the adjustment process mode, and the top item of the same page will show up.
- UP/DOWN of each adjustment value selected is performed with the VOL (+)/(-) keys input.
- For P16 – 17, the unit enters the register select mode with the VOL (+)/(-) keys input while NTSC/PAL is selected, and the cursor moves to the address 01.
- The cursor moves up or down with the "CH (∧)/(✓)" keys and moves left or right with the VOL (+)/(-) keys, and a decision is made with the 12 key.  
When the decision is made, the cursor moves to the adjustment value selected, and UP/DOWN of each adjustment value selected by the "VOL (+)/(-)" keys input is performed.  
0 ↔ 1 ↔ ... ↔ 9 ↔ A ↔ ... ↔ F ↔ 0 ↔ ...  
Decide with the 12 key and return to the address select. Move to the next item with the "MENU" key.  
During address select, the cursor movement by the "VOL (+)/(-)" keys input is as follows:  
Example: 01 ↔ 02 ↔ 03 ↔ 01 ↔ ...  
The cursor movement by the "CH (∧)/(✓)" keys input is as follows:  
Example: 02 ↔ 05 ↔ ... ↔ F6 ↔ 02 ↔ ...

## 4. Initialization

When the microprocessor (IC2001) or the EEPROM (IC2004) has been replaced or when the EEPROM has been initialized, readjust the each adjustments.

4-1. Connect the pins (81) and (82) of IC2001 (microprocessor) to GND, and turn on the power.

4-2. Select the model name to (E1E).

4-3. Select the inch size (13)\*1 or (15)\*2.

4-4. LED changes green from red after setting finish and about 15 seconds, initialization is completed, and it becomes adjustment mode.

NOTE:

\*1: MODEL. LC-13E1E

\*2: MODEL. LC-15E1E

## 5. Adjustment

5-1. +B adjustment...Page 1 +B-ADJ

Adjust the voltage of the pin (13) of P2002 to  $5.00 \pm 0.02V$ .

Note: Since 5.0V is a reference voltage of all power voltage, adjust it precisely.

5-2. Counter-bias adjustment

Vary the "COM BIAS" setting on Page 2 of the adjustment process mode so that the contrast be sharpest (black looks most sinking).

5-3. TAMP adjustment

1) Receive the upper left of 75% white half colour bar signal.

2) See if the "Y" reading on page 2 of the adjustment process mode is somewhere following. If not, make the "PAL TAMP" adjustment to get the "Y" reading in the range of BF thru C9.

3) If the adjustment of "PAL TAMP" is executed, write its adjustment value to the "SECAM TAMP" manually.

(Screen of the page 2 of the adjustment processing menu OSD)

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
0		2																									
1		▶	C	O	M		B	I	A	S															9	0	
2			P	A	L		T	A	M	P															2	1	
3			S	E	C		A	M		T	A	M	P												2	1	
4			R	C	U		T	O	F	F															—	5	
5			G	C	U		T	O	F	F																0	
6			B	C	U		T	O	F	F															—	3	
7			G	3			B	3			R	3					0	0			0	0			0	0	
8			G	1			B	4				Y					0	0			0	0			B	5	
9			T	A	M	P		H																	C	9	
10			T	A	M	P		L																	B	F	
11																											
12																											
13																											

Y Data  
(White 75%)

5-4. White balance adjustment

Adjust "RCUTOFF" and "BCUTOFF" on the page 2 of the adjustment processing so as to obtain the colour of the same level as the standard set.

Note: For the adjustment processing of "RCUTOFF" and "BCUTOFF", adjust them in the indication value range of ... -9, -7, ... -1, +1, ... +7, +9.

When it becomes even-numbered value, side favor noise sometimes occurs in the monochrome signal of the specific gradation.

## 6. Factory Setting

- 6-1. Perform a factory setting after completing all adjustments.
  - 6-2. A "POWER" keys is made on with pushing an "TV/VIDEO" and "MENU" keys at the same time.
  - 6-3. "K" of the inspection process mode is displayed on the screen upper left.
  - 6-4. CH (∧) and VOL (+) keys are pushed about 2 seconds at the same time.
  - 6-5. Release keys, if "E" is displayed on the screen upper left and "COMPLETE" is displayed on the bottom of it.
  - 6-6. After a while, a power will be in a standby mode and a setup will be finished.
- Note: "First installation" serves on "Deutsch".

## 7. Lamp error detection

### 7-1. Functional description

This LCD colour television has a function (lamp error detection) to be turned OFF automatically for safety when the lamp or lamp circuit is abnormal.

If the lamp or lamp circuit is abnormal, or some other errors happen, and the lamp error detection is executed, the followings occur.

- ① The main unit of television is turned OFF 5 seconds after it is turned ON. (The power LED on the front side of TV turns from green to red.)
- ② If the situation ① happens 5 times sequentially, television can not be turned ON. (The power LED remains red.)

### 7-2. Countermeasures

#### 7-2-1. Check when turning OFF the lamp error detection

When television is turned OFF by the lamp error detection mentioned above, it enters the adjustment process with the power LED red. Entering the adjustment process turns OFF the error detection and turns ON TV.

This enables the operation check to detect errors in the lamp or lamp circuit.

Check whether "ERROR NO RESET" on line 9, page 1 of the adjustment process is 1 or more. If it is 1 or more, it indicates the lamp error detection was executed.

#### 7-2-2. Resetting of the lamp error count

After confirming that the lamp or lamp circuit is normal, reset the lamp error count. Select "ERROR NO RESET" on line 9, page 1 of the adjustment process and set the number to 0 using the volume button.

Page 1 of the adjustment process

1				
+ B — A D J				160
M O D E L				E1E
I N C H	S I Z E			*3
N T S C	P W M	F R E Q		0C0
P A L	P W M	F R E Q		0BD
N T S C	P W M	D U T Y		0
P A L	P W M	D U T Y		0
T V	G A I N			OFF
E R R O R	N O	R E S E T		5
P U B L I C	M O D E			OFF
E 1 E    V E R   1 . 0 0 0				

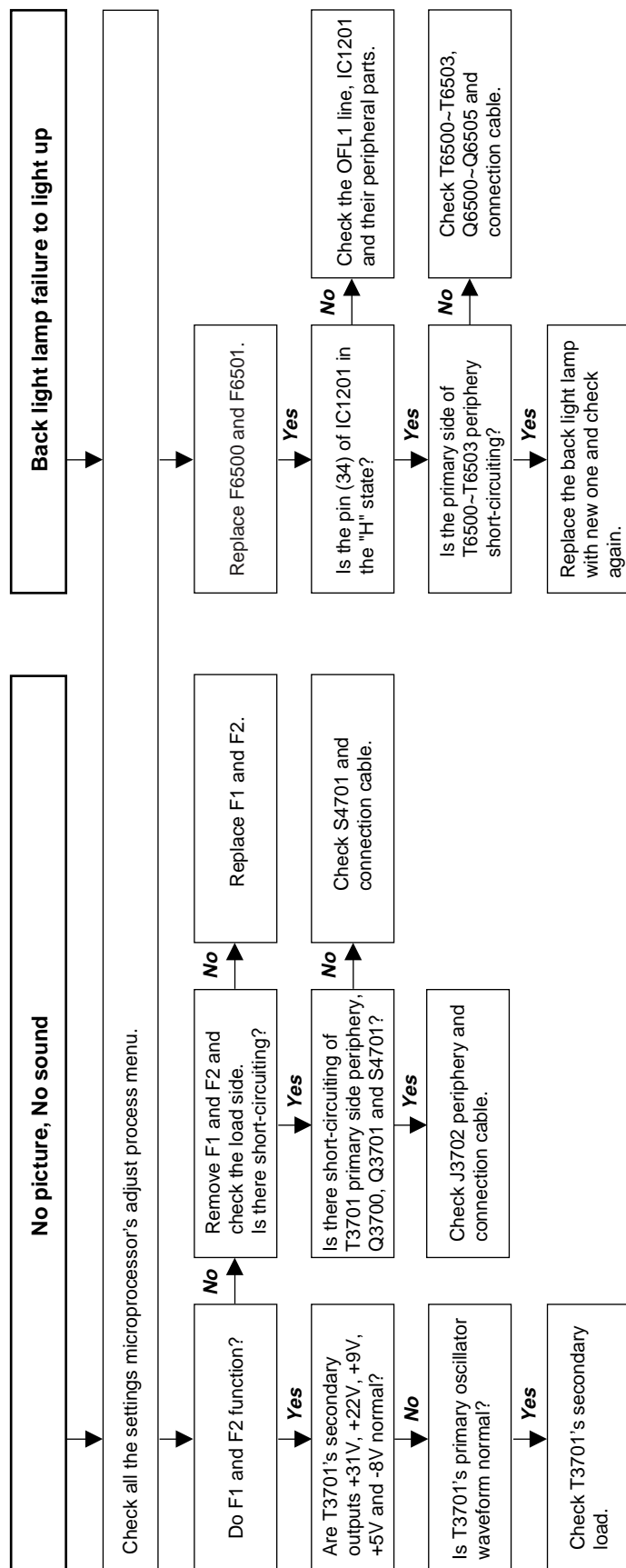
Reset 0

Afterwards, perform the operation check to confirm that the lamp error detection does not function.

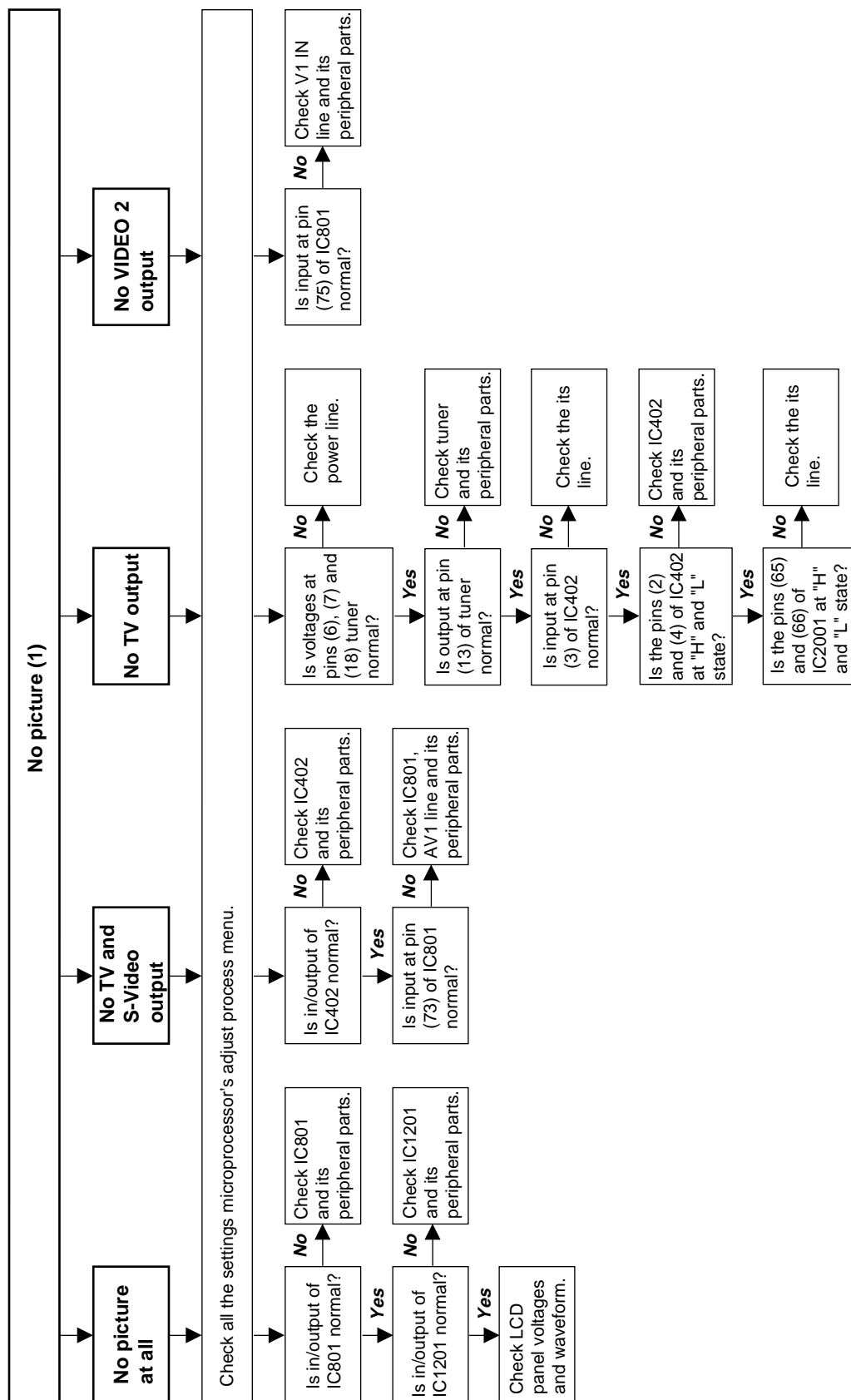
NOTE:\*3 LC-13E1E=13, LC-15E1E=15



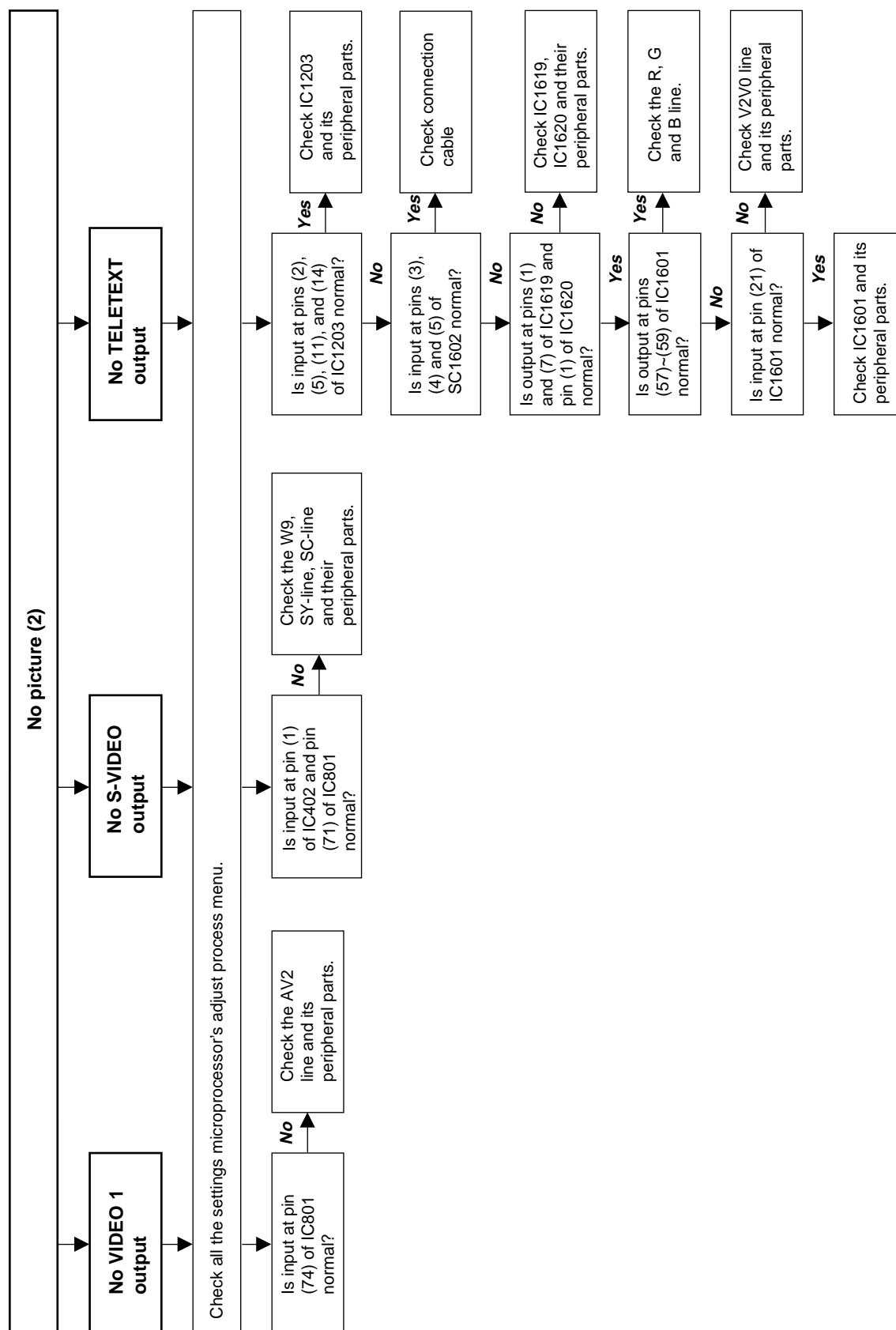
# TROUBLE SHOOTING TABLE



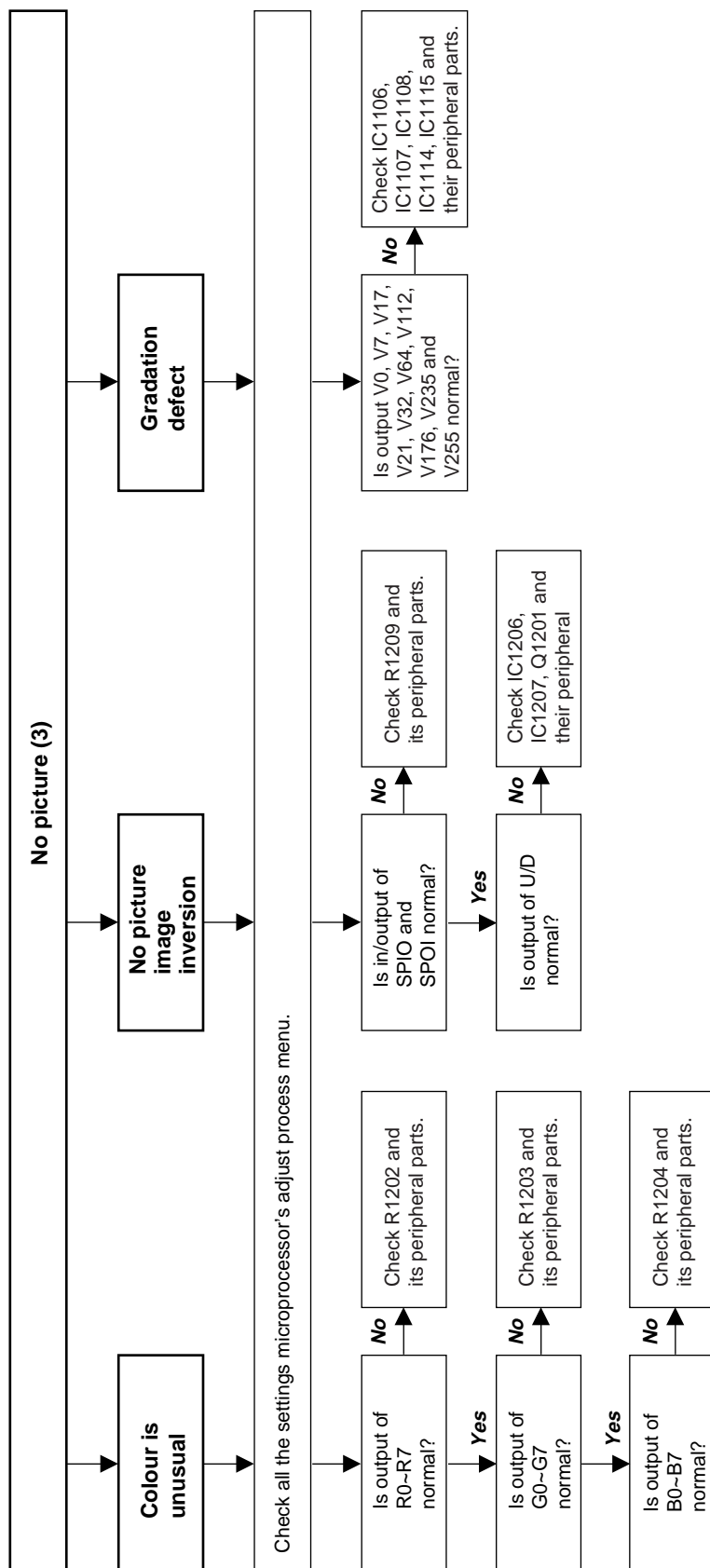
# TROUBLE SHOOTING TABLE (Continued)



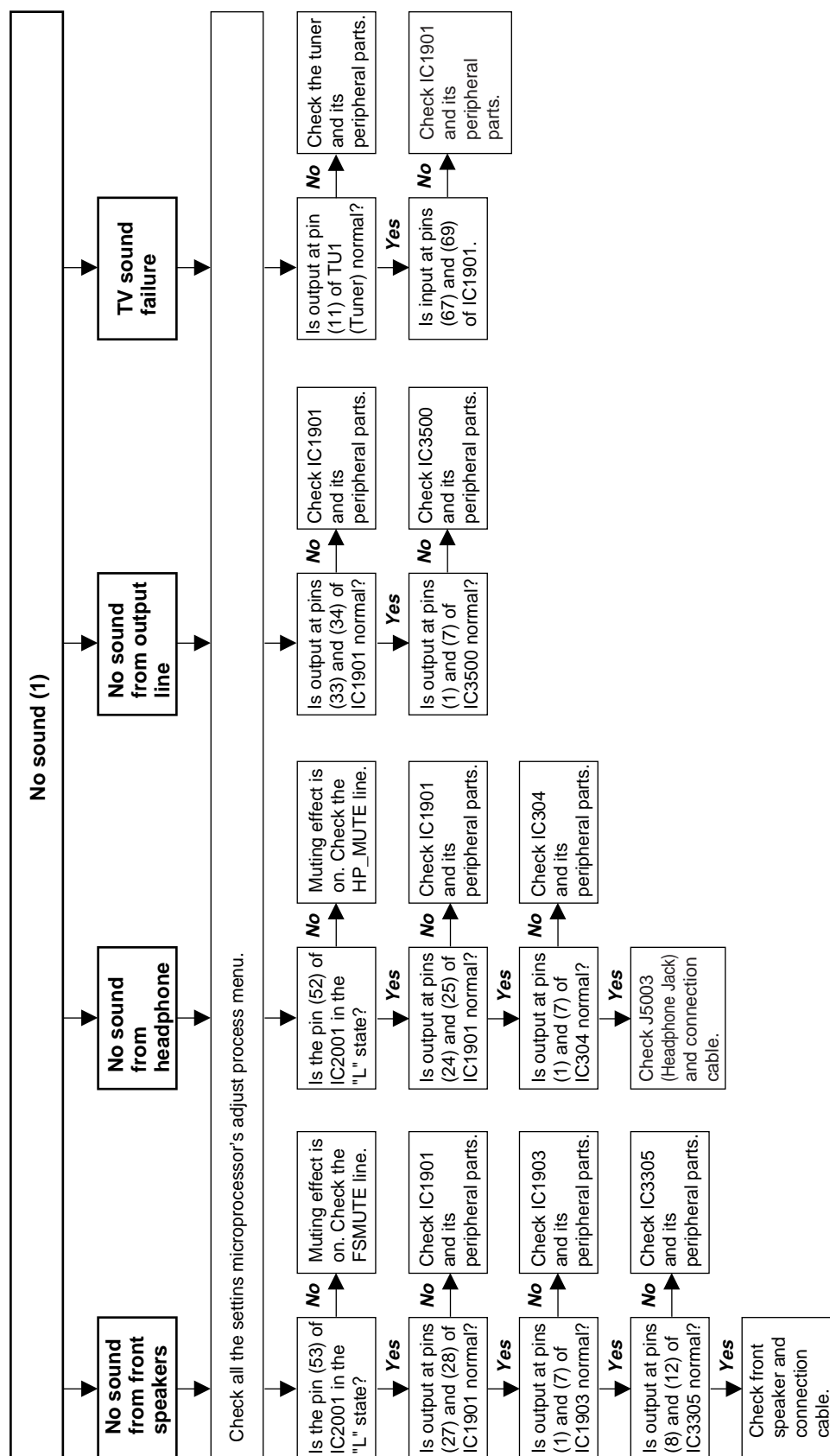
## TROUBLE SHOOTING TABLE (Continued)



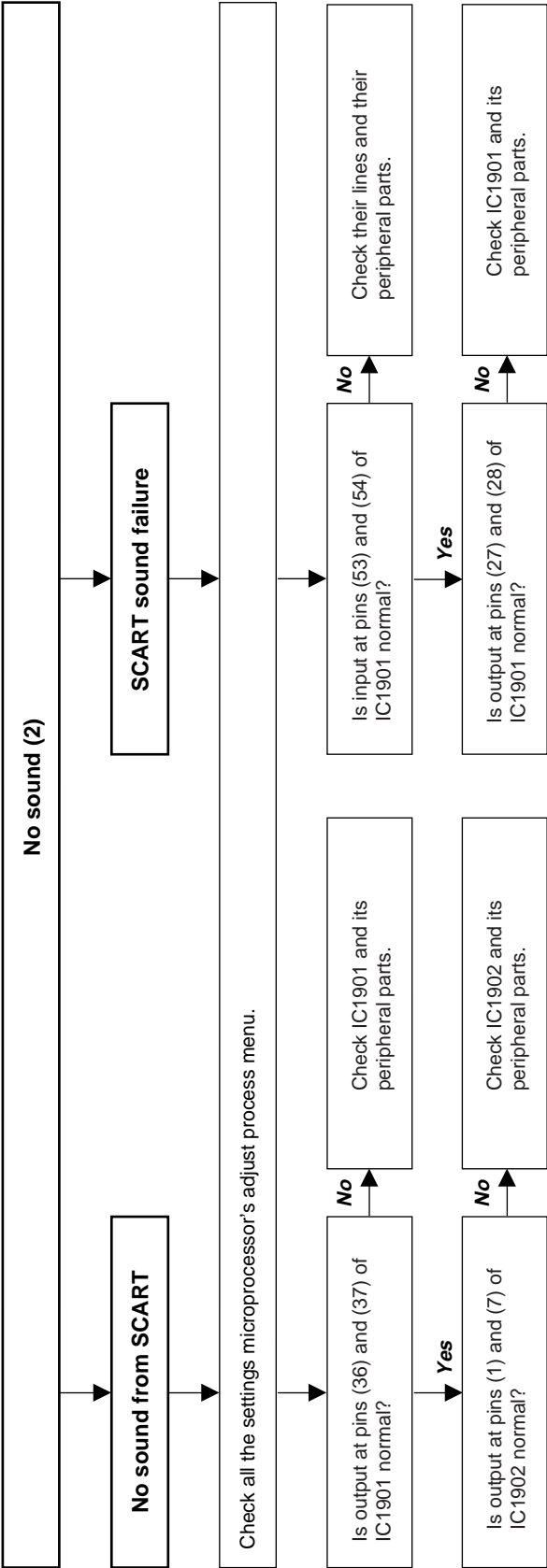
## TROUBLE SHOOTING TABLE (Continued)



## TROUBLE SHOOTING TABLE (Continued)



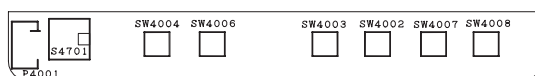
# TROUBLE SHOOTING TABLE (Continued)



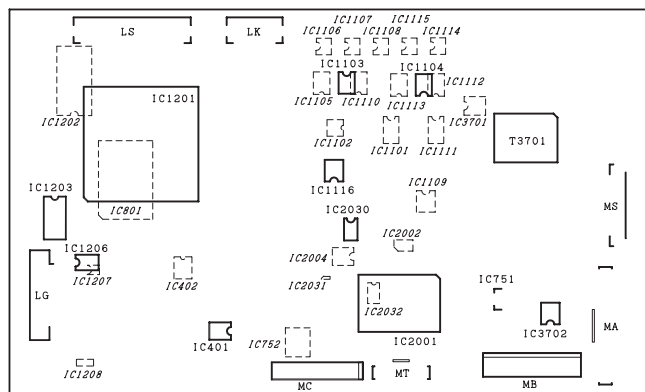
## CHASSIS LAYOUT

A	
B	
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H	

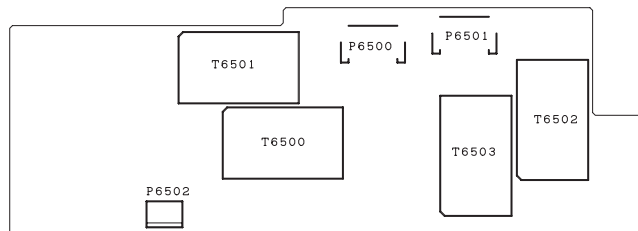
## OPERATION Unit



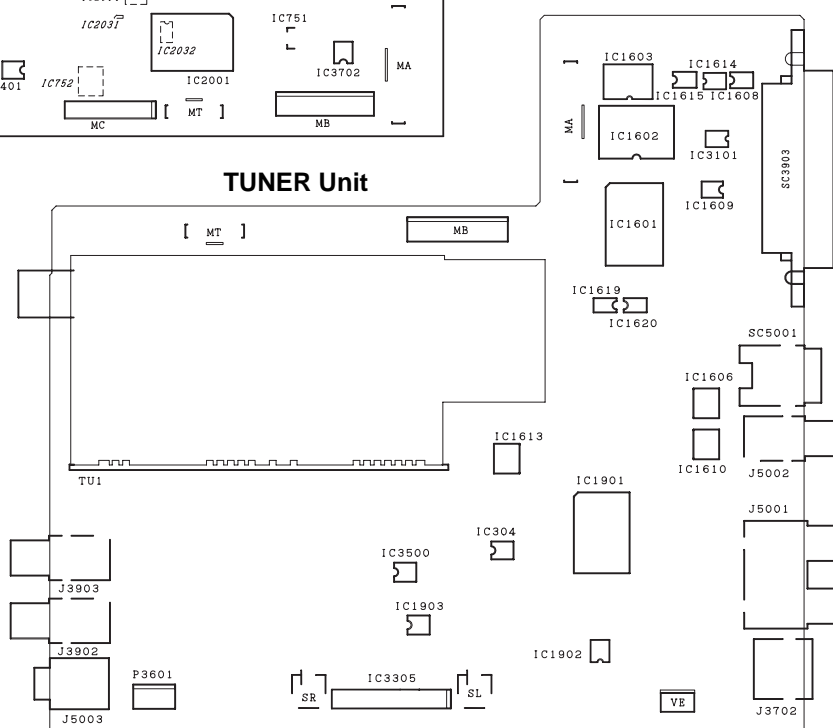
## MAIN Unit



## INVERTER Unit



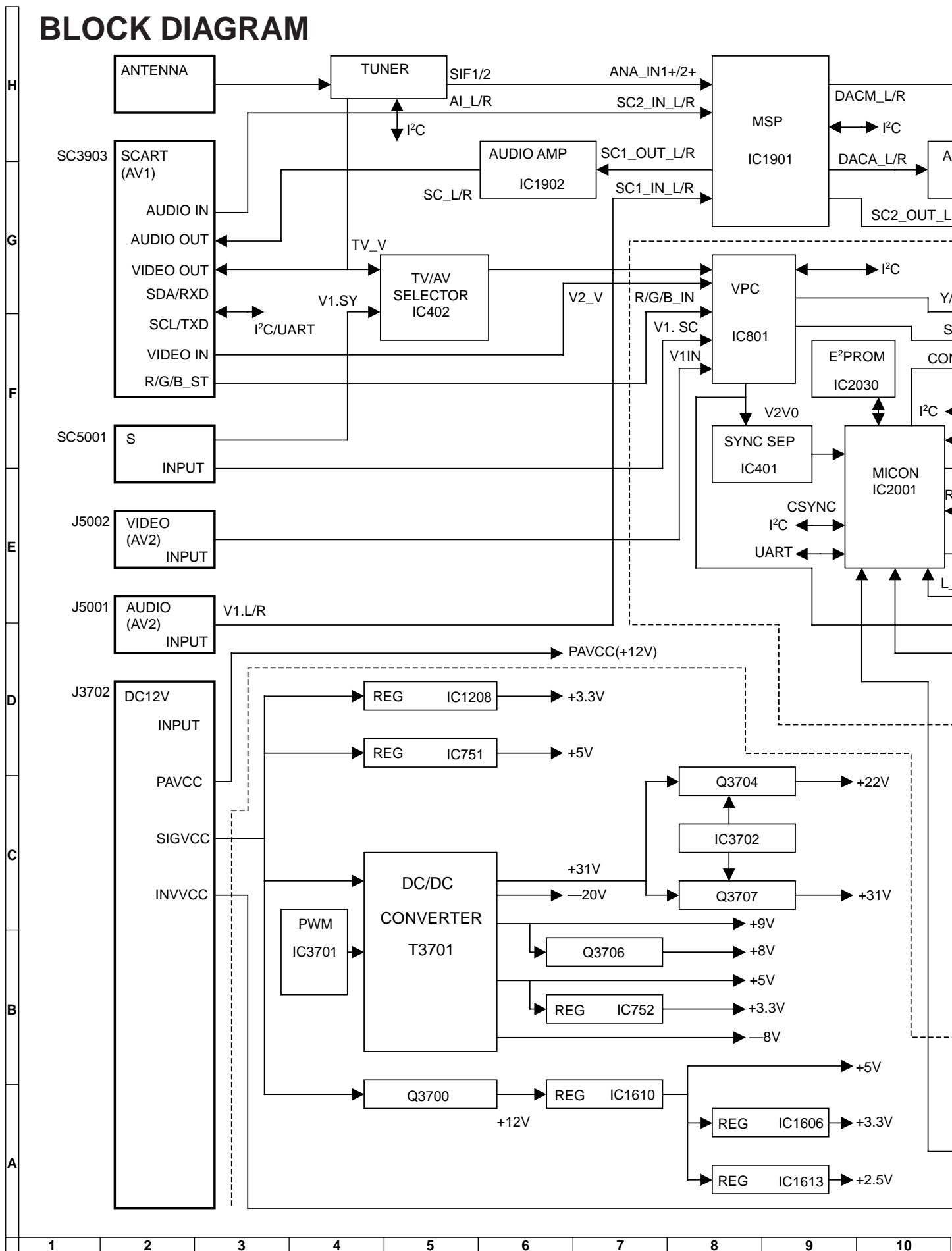
## TUNER Unit



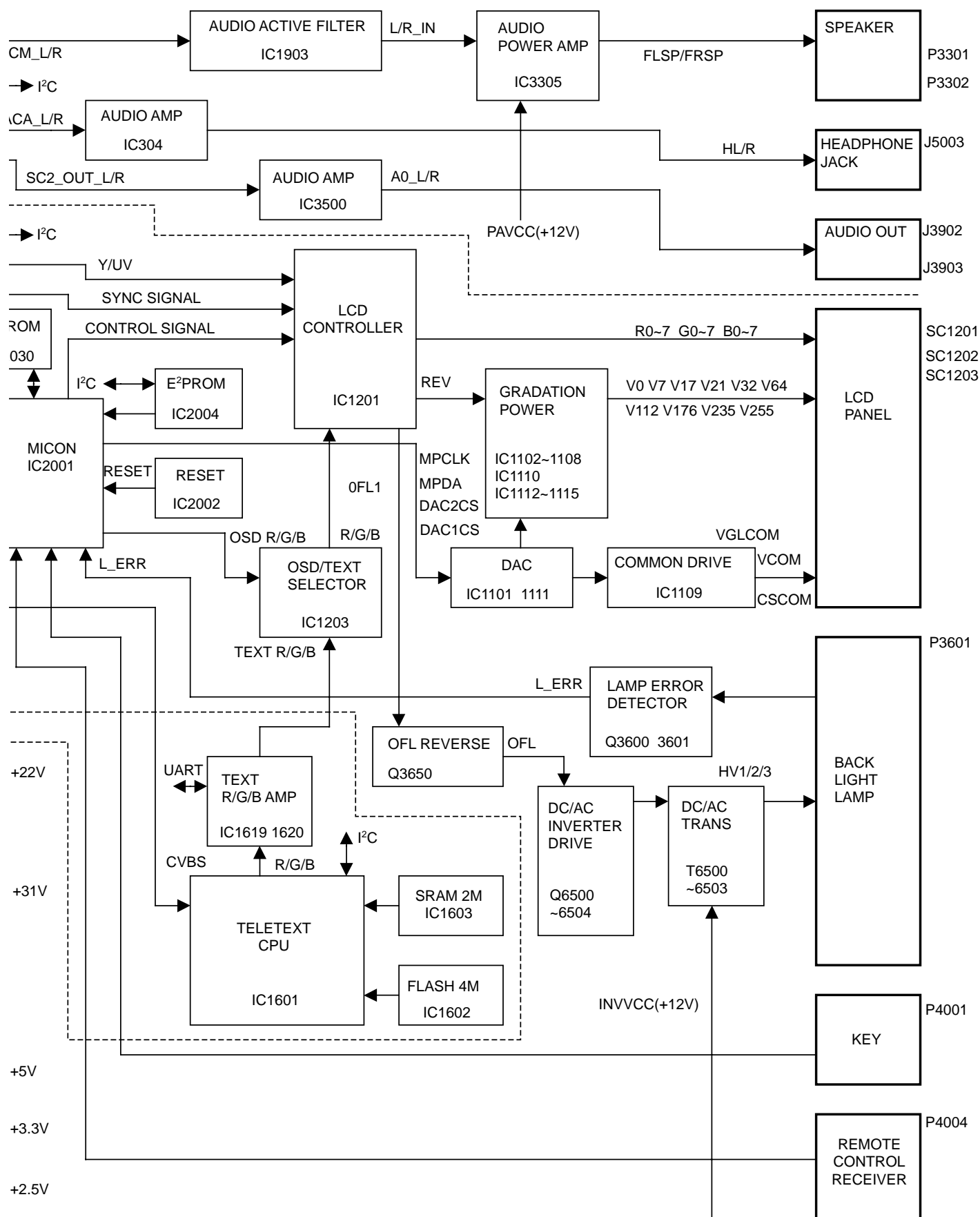
### R/C, LED Unit



## BLOCK DIAGRAM

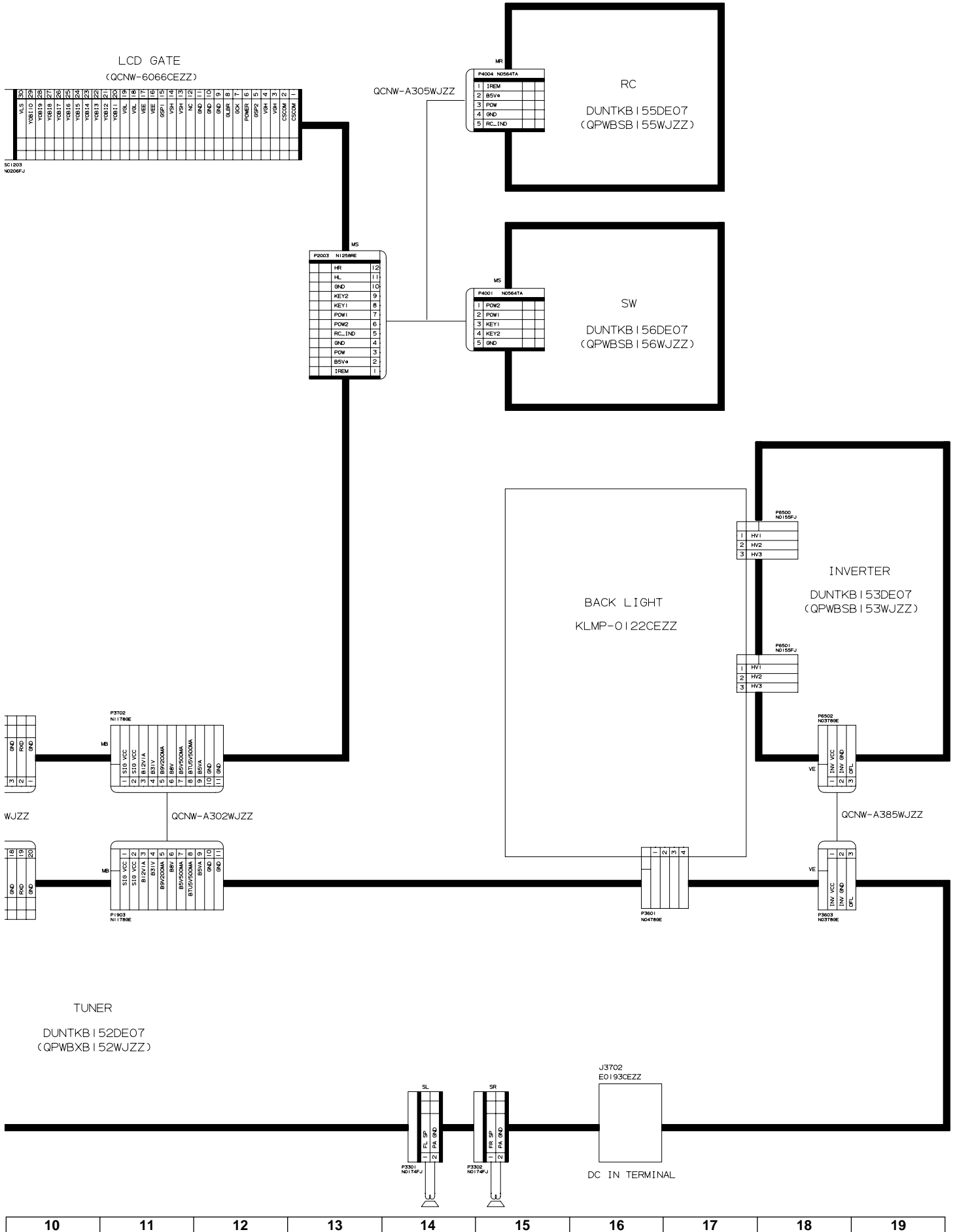




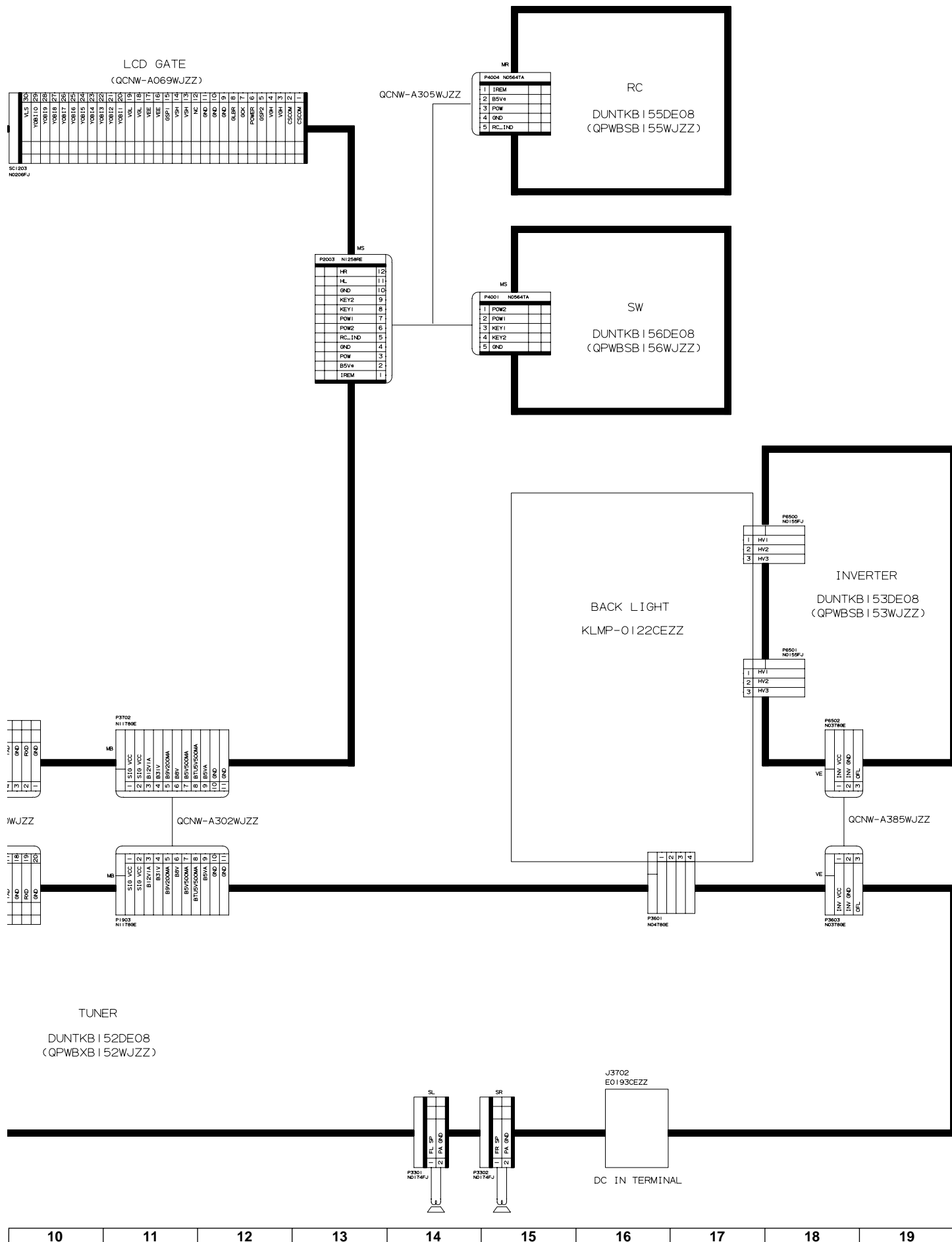


10	11	12	13	14	15	16	17	18	19
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## DESCRIPTION OF SCHEMATIC DIAGRAM

### VOLTAGE MEASUREMENT CONDITION:

1. Voltages at test points are measured on exclusive AC adapter and the stable supply voltage of AC 120V. Signals are fed by a color bar signal generator for servicing purpose and the above voltages are measured with a 20k ohm/V tester.

### INDICATION OF RESISTOR & CAPACITOR:

#### RESISTOR

1. The unit of resistance "Ω" is omitted.  
(K=kΩ=1000 Ω, M=MΩ).
2. All resistors are ± 5%, unless otherwise noted.  
(J= ± 5%, F= ± 1%, D= ± 0.5%)
3. All resistors are 1/10W, unless otherwise noted.
4. All resistors are Carbon type, unless otherwise noted.

©: Solid                      Ⓜ: Cement  
 Ⓢ: Oxide Film              Ⓣ: Special  
 Ⓝ: Metal Coating

#### CAPACITOR


1. All capacitors are μF, unless otherwise noted.  
(P=pF=μμF).
2. All capacitors are 50V, unless otherwise noted.
3. All capacitors are Ceramic type, unless otherwise noted.

(ML): Mylar                      (TA): Tantalum  
 (PF): Polypro Film              (ST): Styrol

### CAUTION:

This circuit diagram is original one, therefore there may be a slight difference from yours.

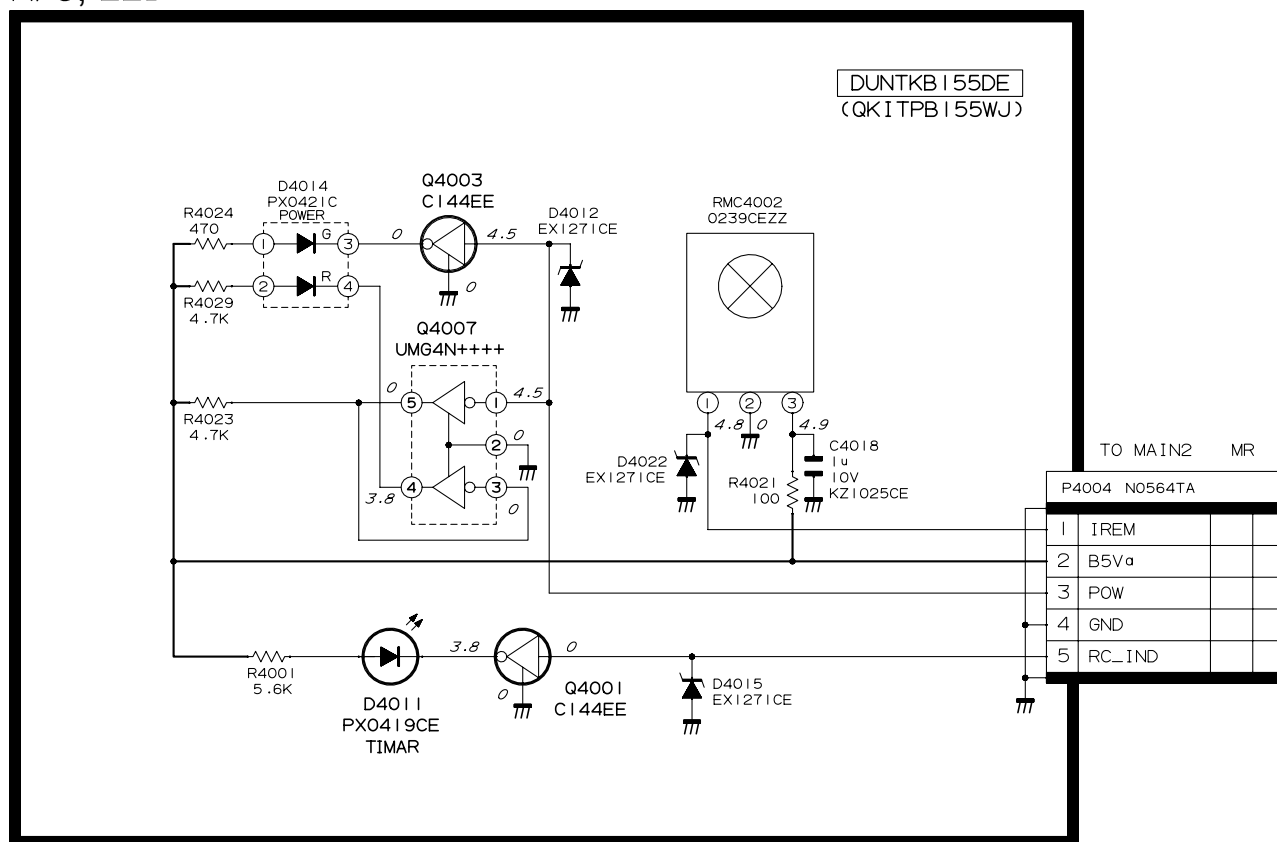
### IMPORTANT SAFETY NOTICE:

**PARTS MARKED WITH "⚠" (  ) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.**

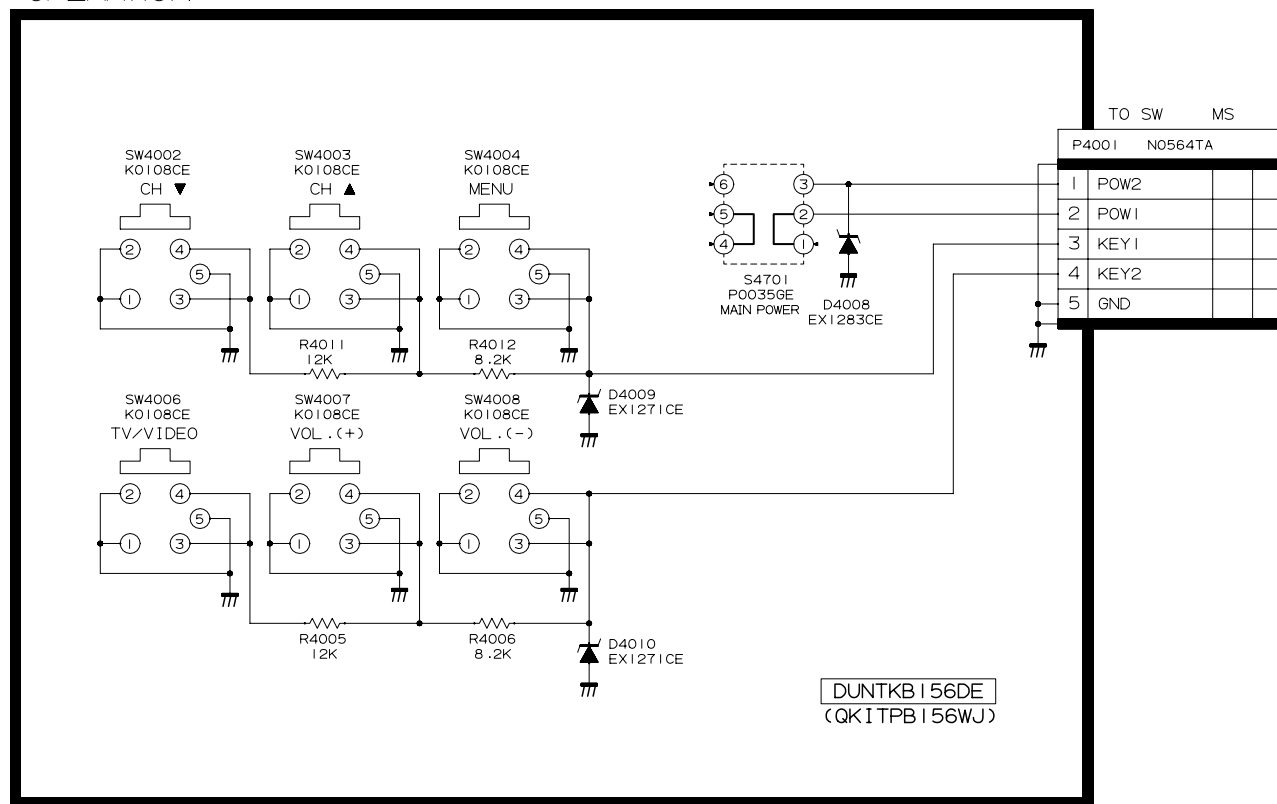
## SCHEMATIC DIAGRAM

## ■ R/C, LED and OPERATION Unit

R/C, LED

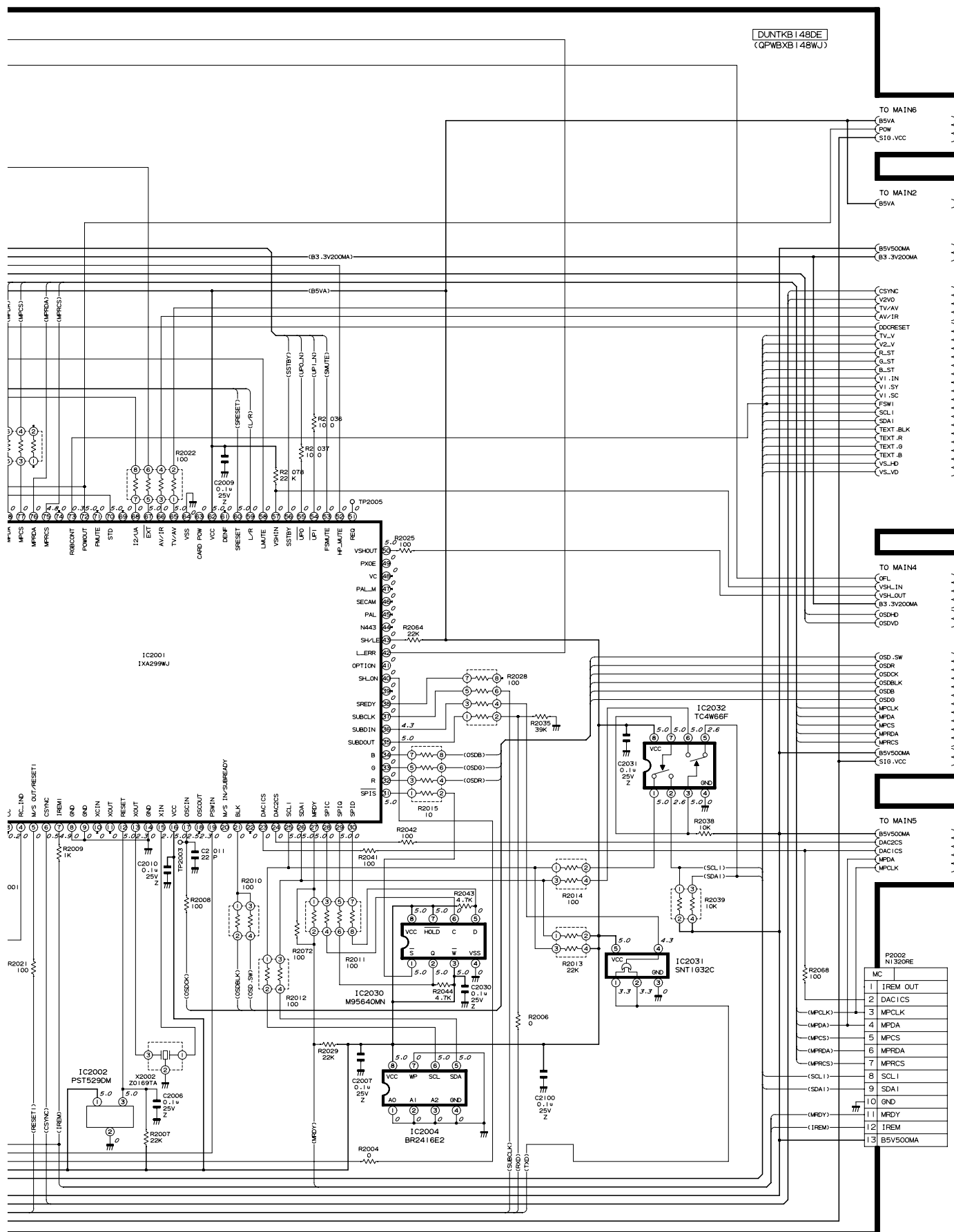


OPERATION









10	11	12	13	14	15	16	17	18	19
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# MAIN Unit-2/6 (LC-13E1E)

MAIN2

H

G

F

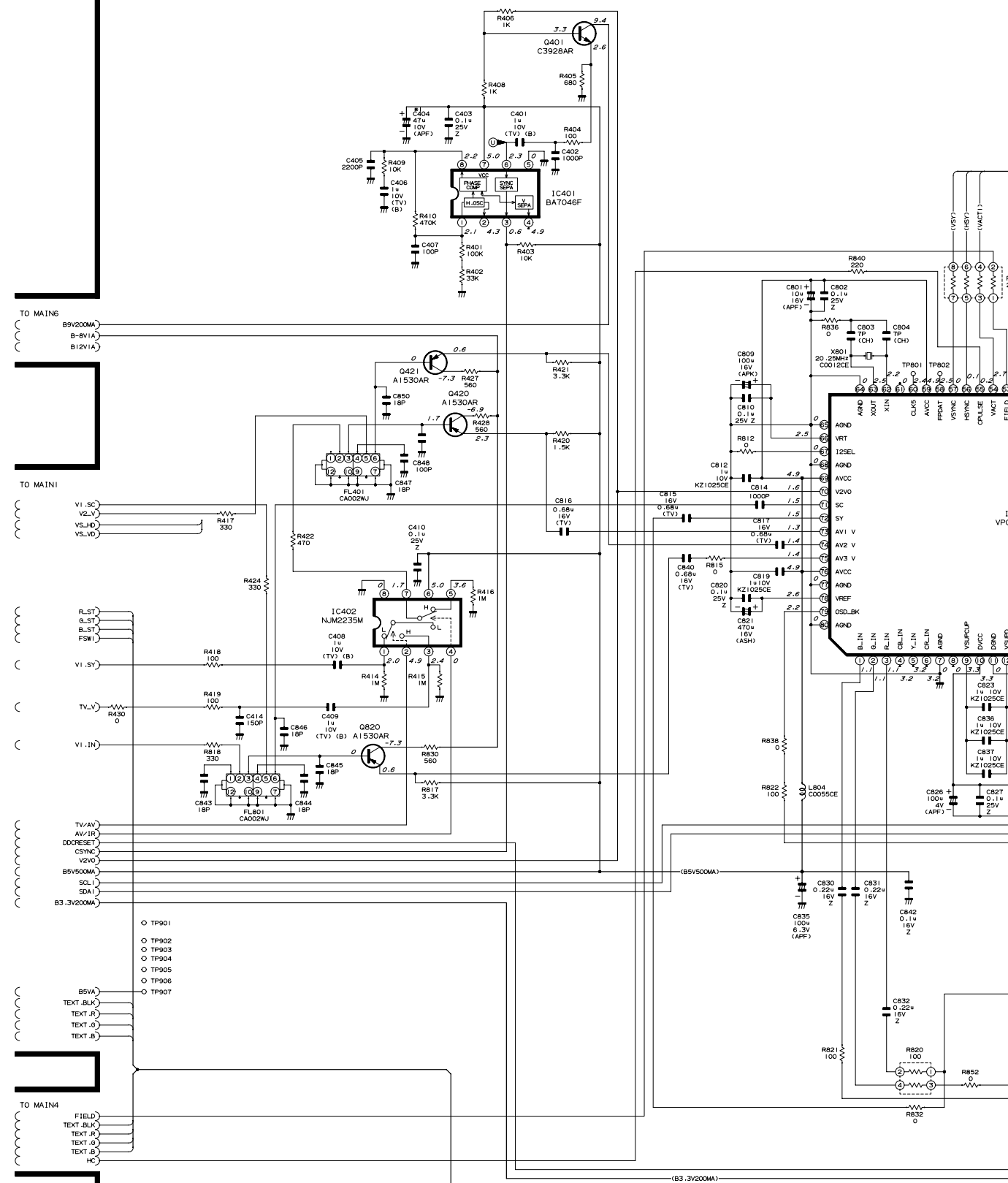
E

D

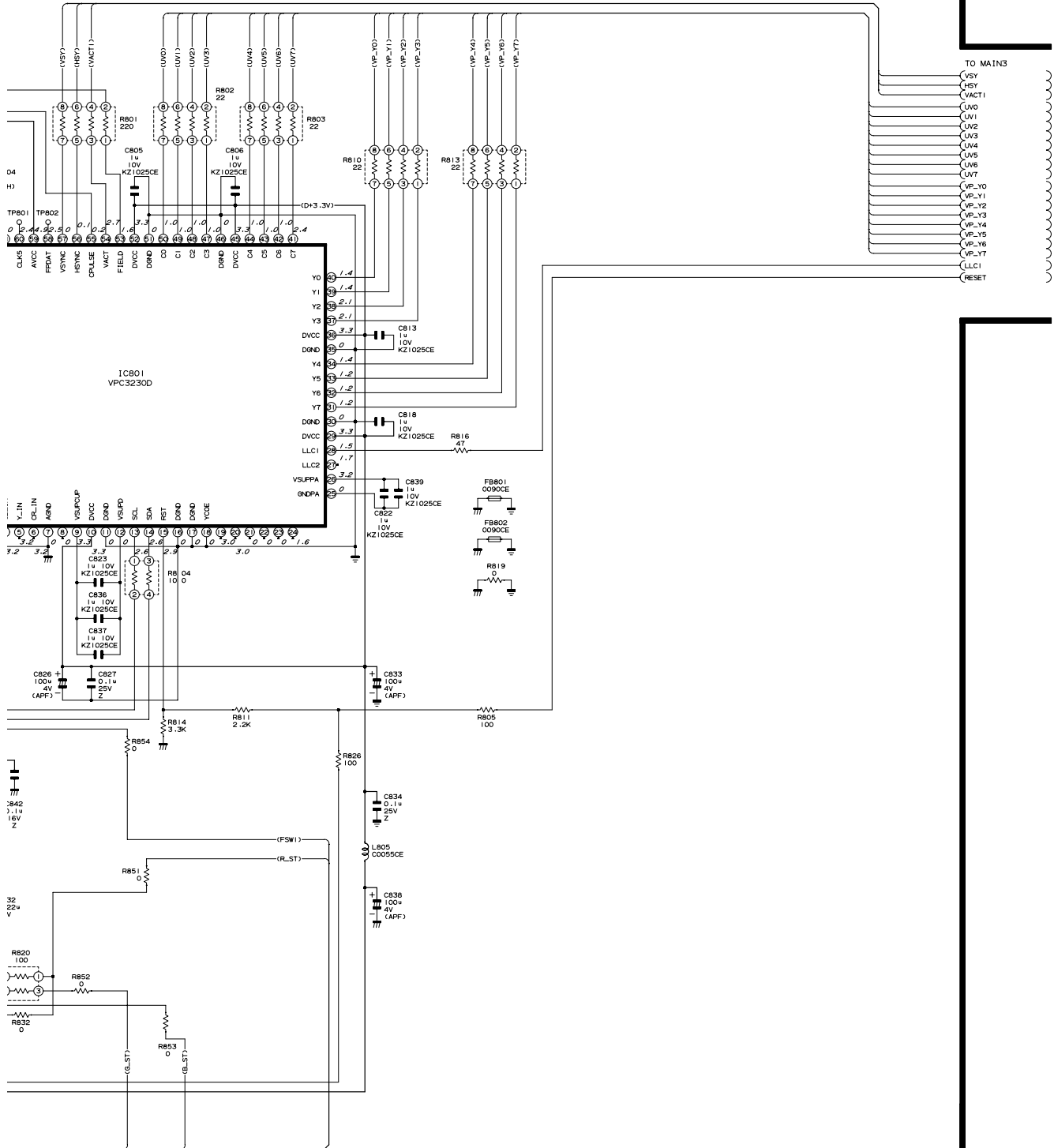
C

B

A

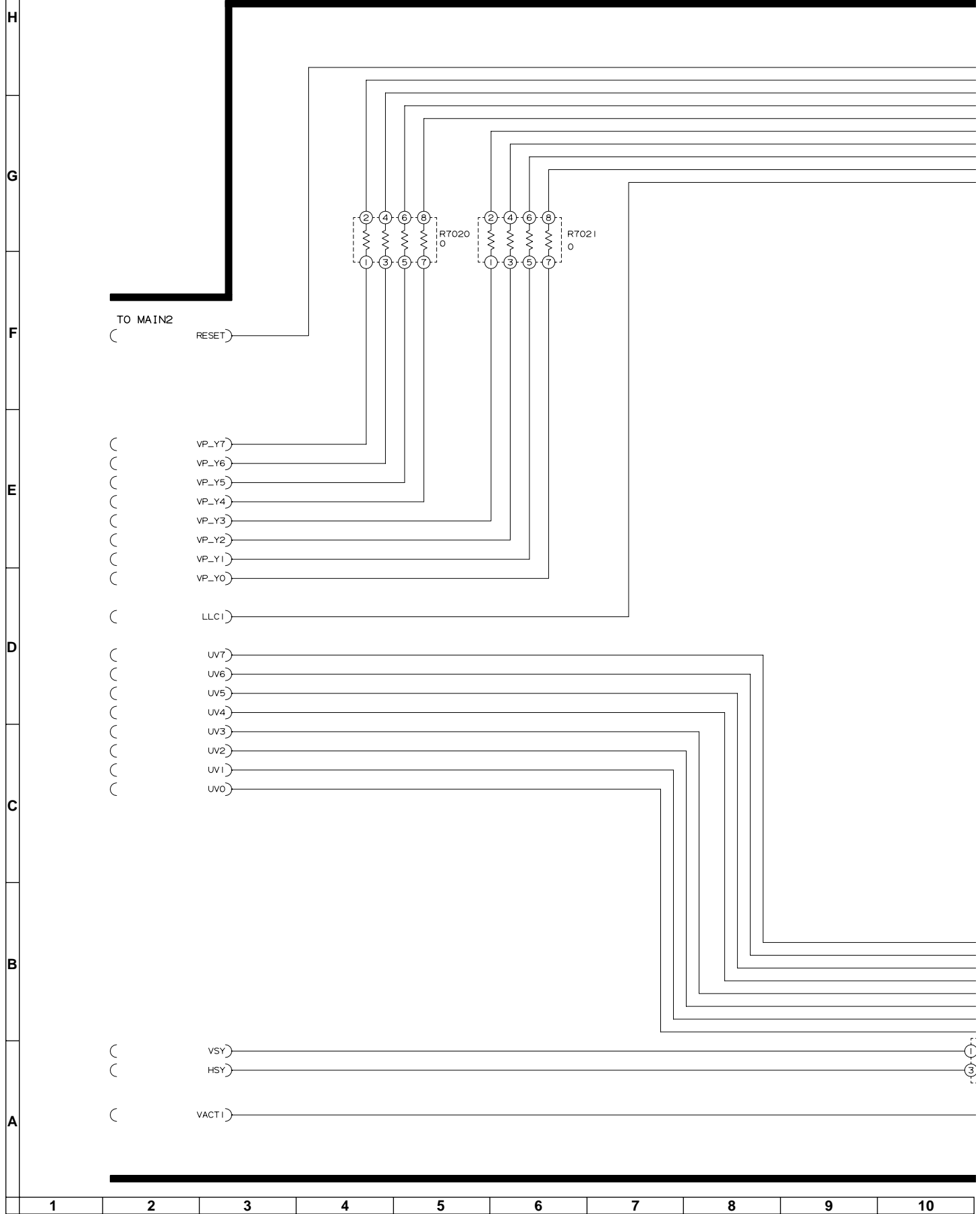


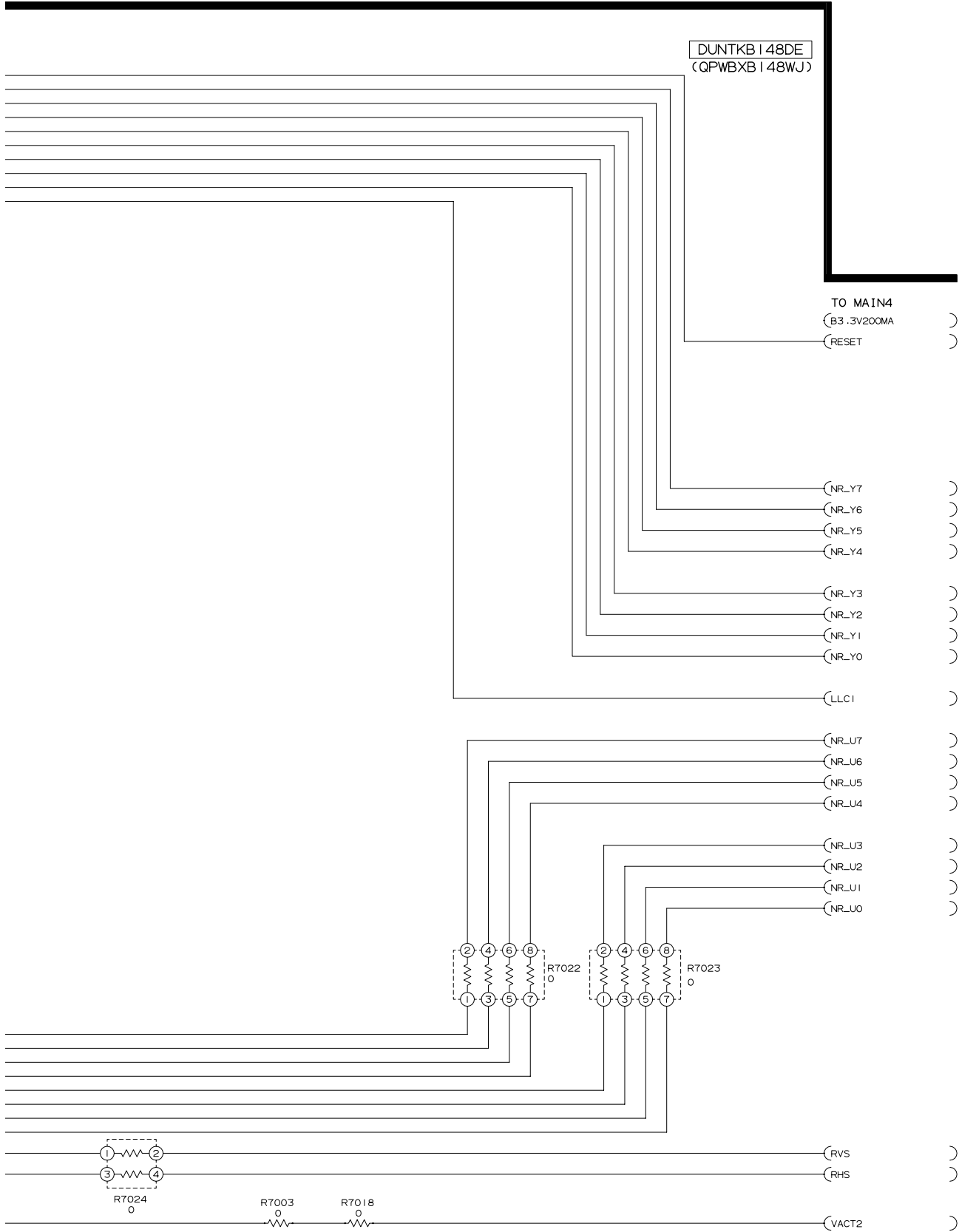
DUNTKB148DE  
(QPWBXB148WJ)



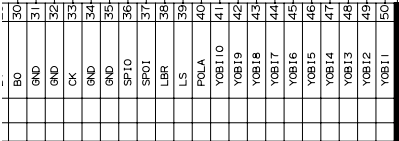
■ MAIN Unit-3/6 (LC-13E1E)

MAIN3









# MAIN Unit-5/6 (LC-13E1E)

MAIN5

H

G

F

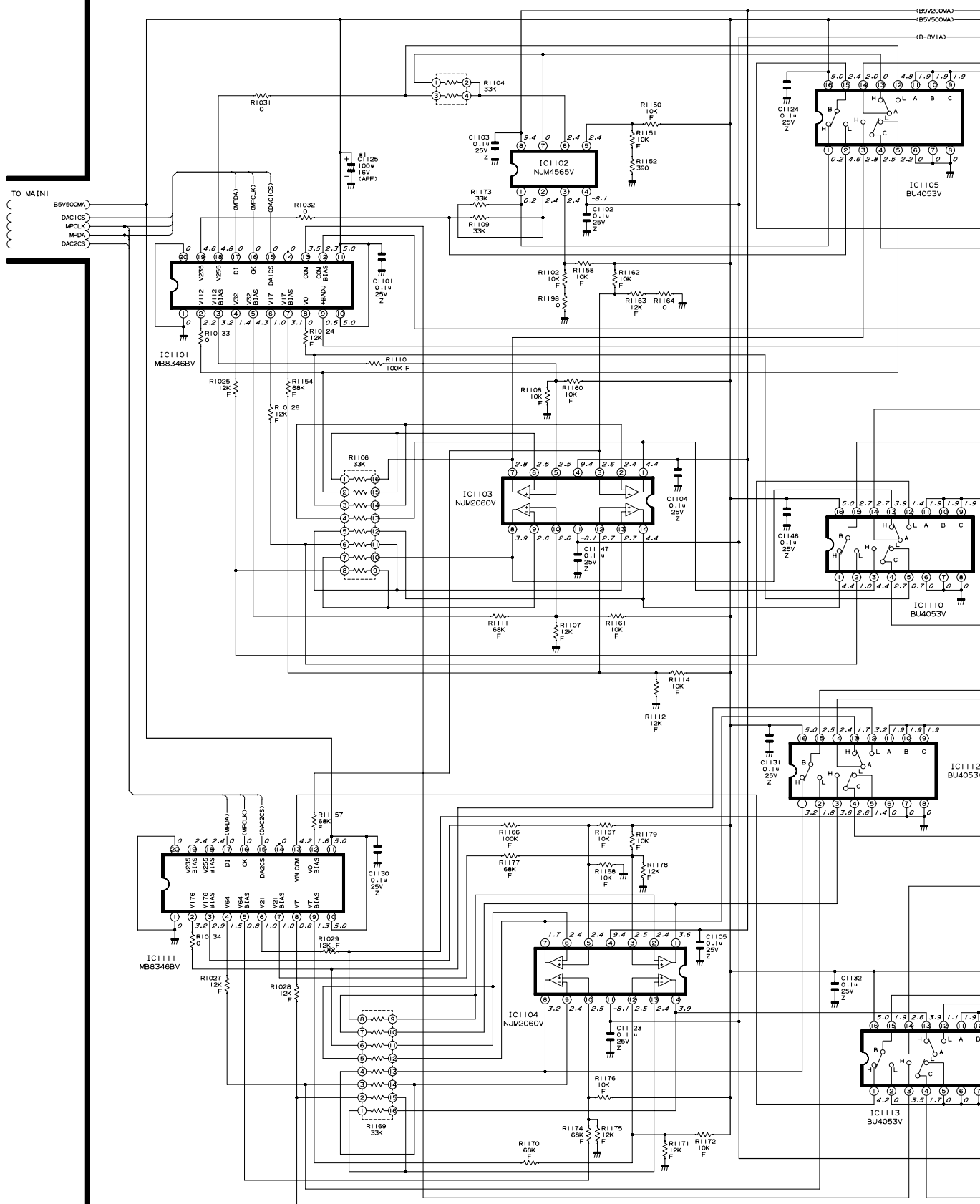
E

D

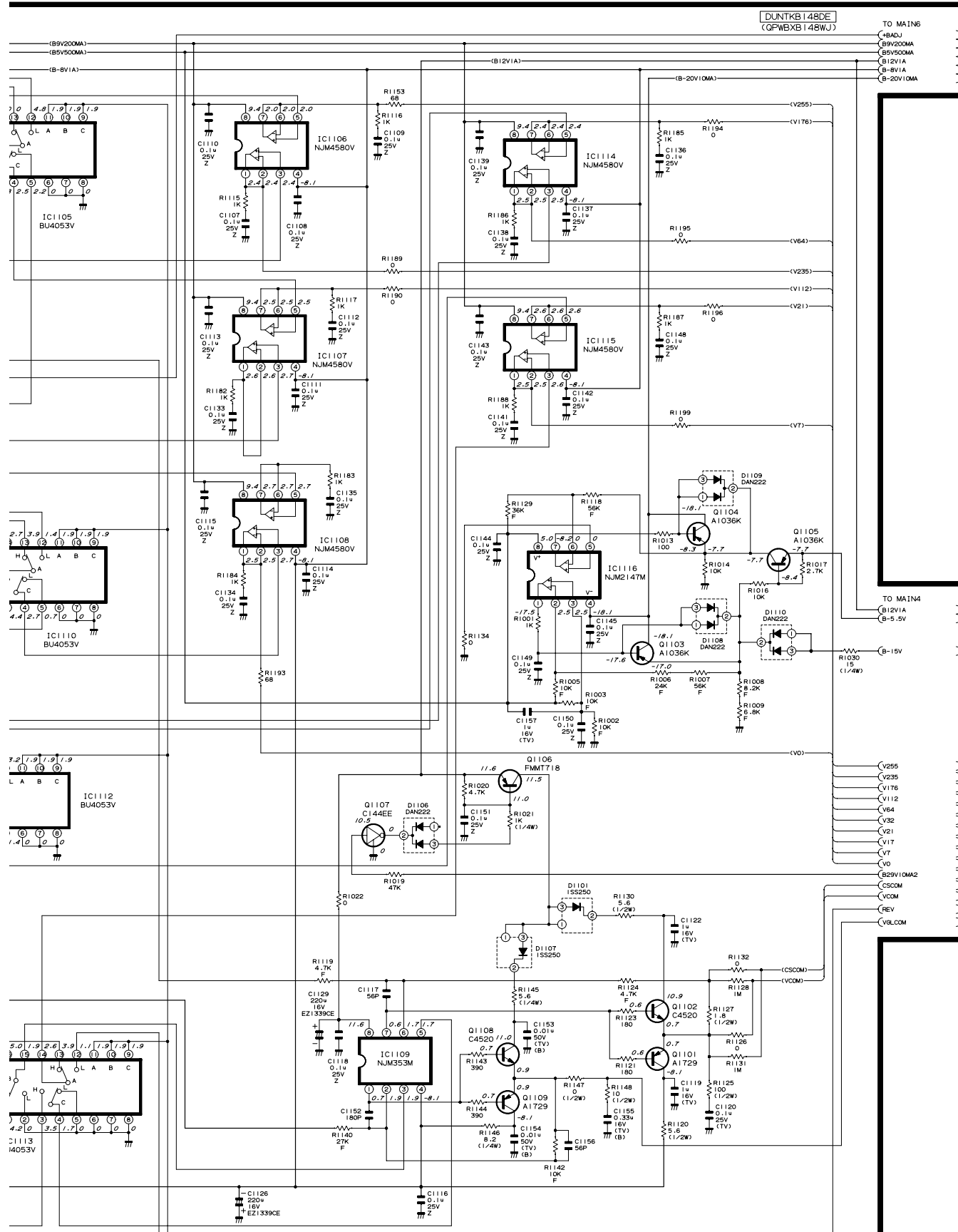
C

B

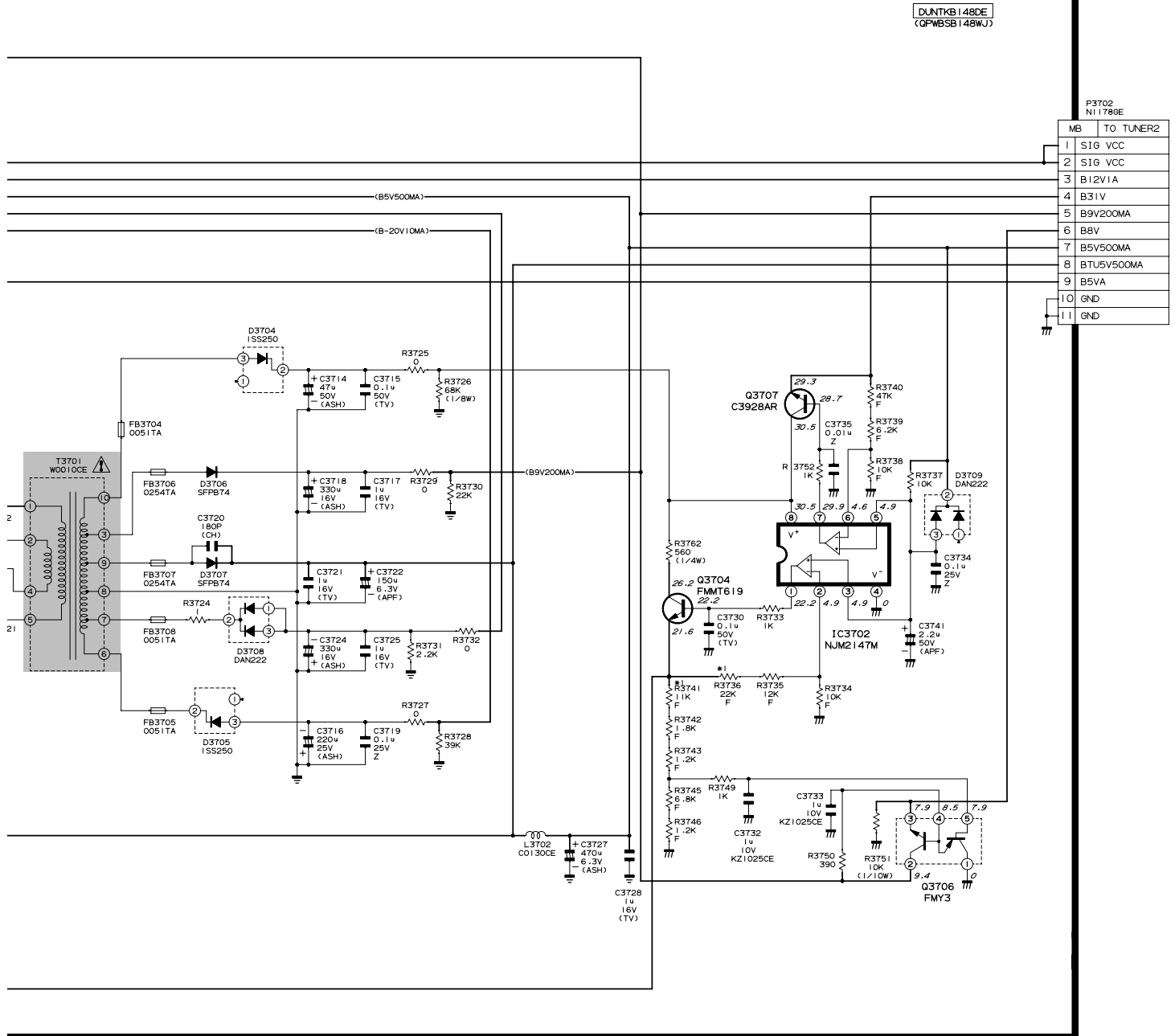
A



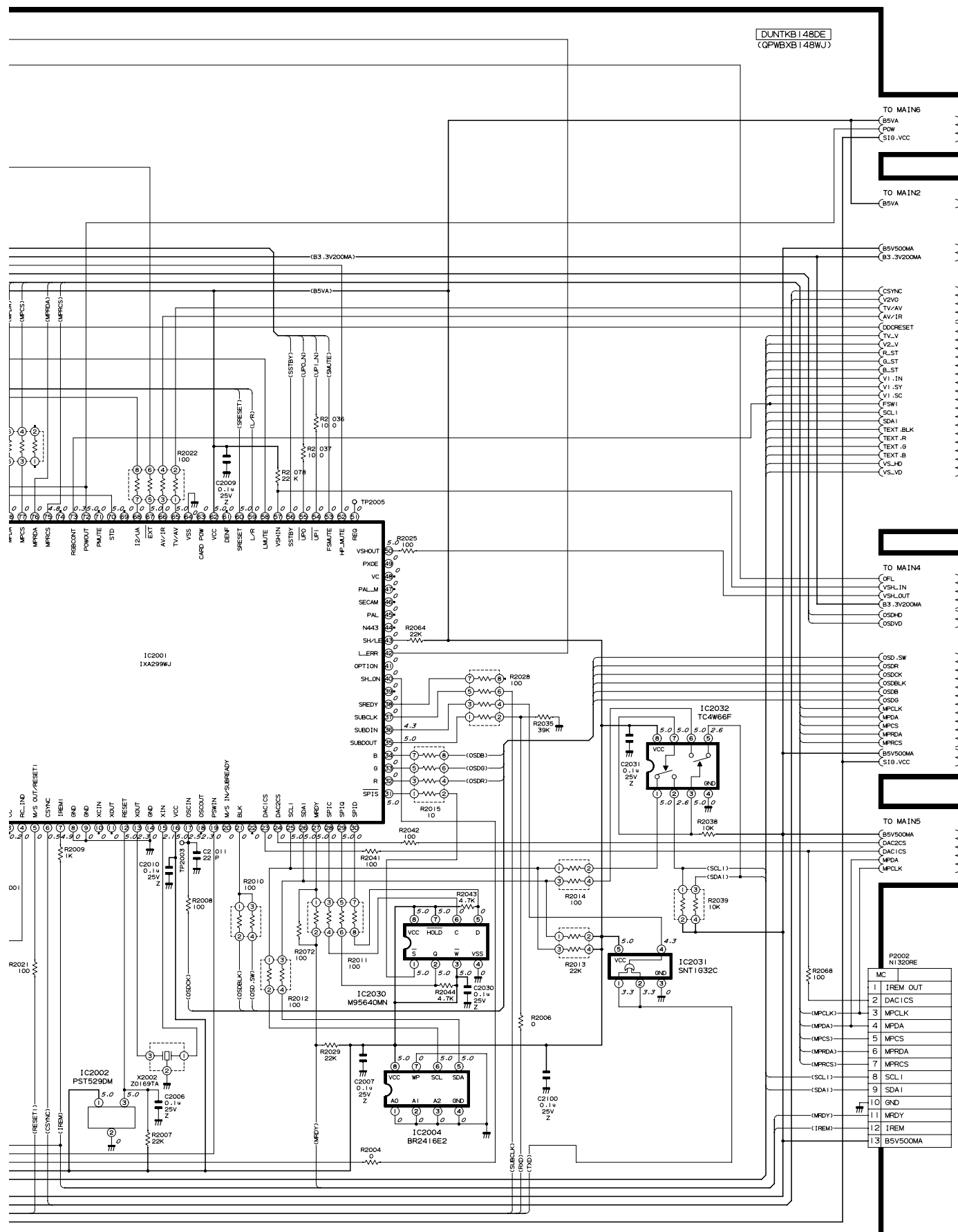












10	11	12	13	14	15	16	17	18	19
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# MAIN Unit-2/6 (LC-15E1E)

MAIN2

H

G

F

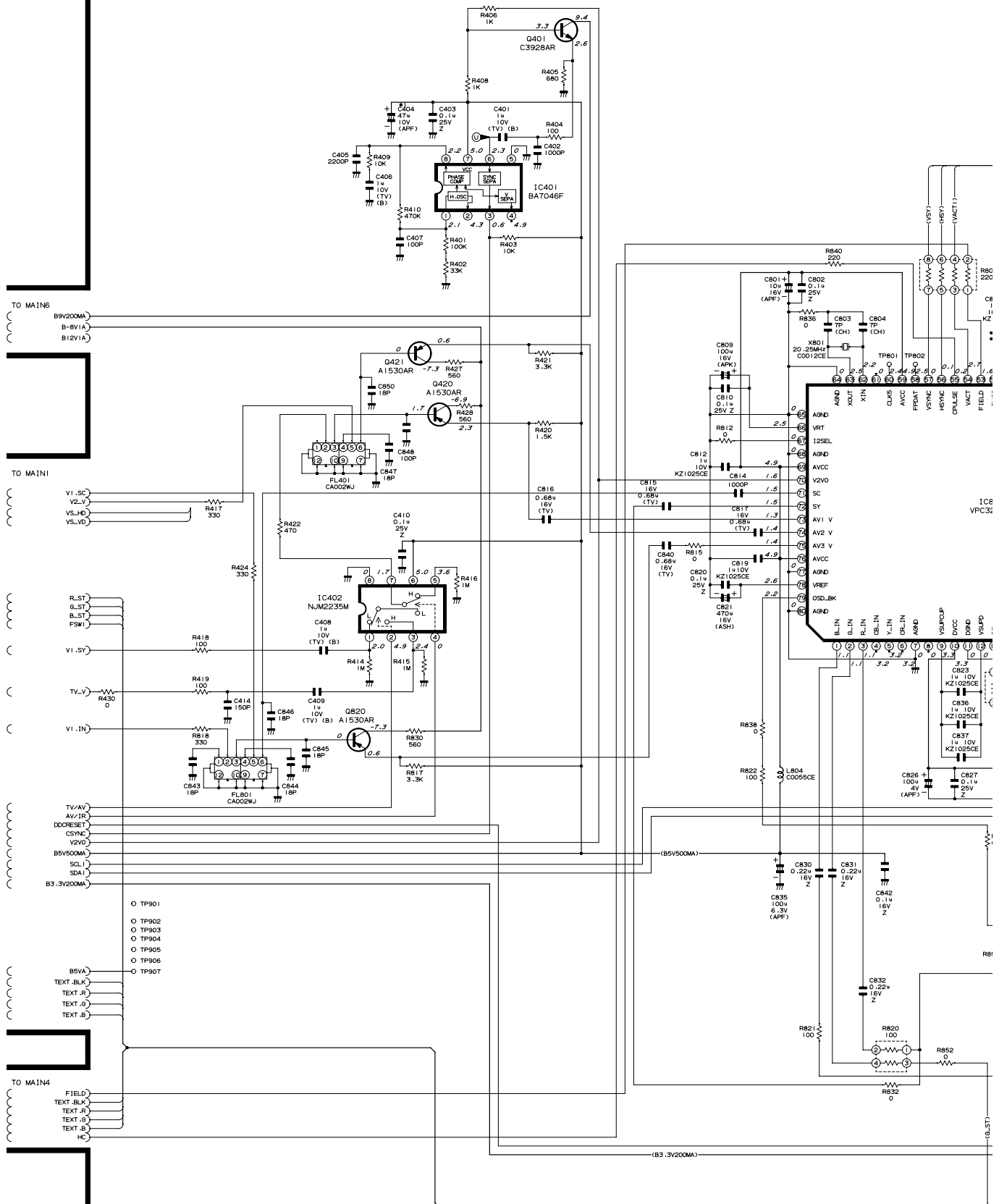
E

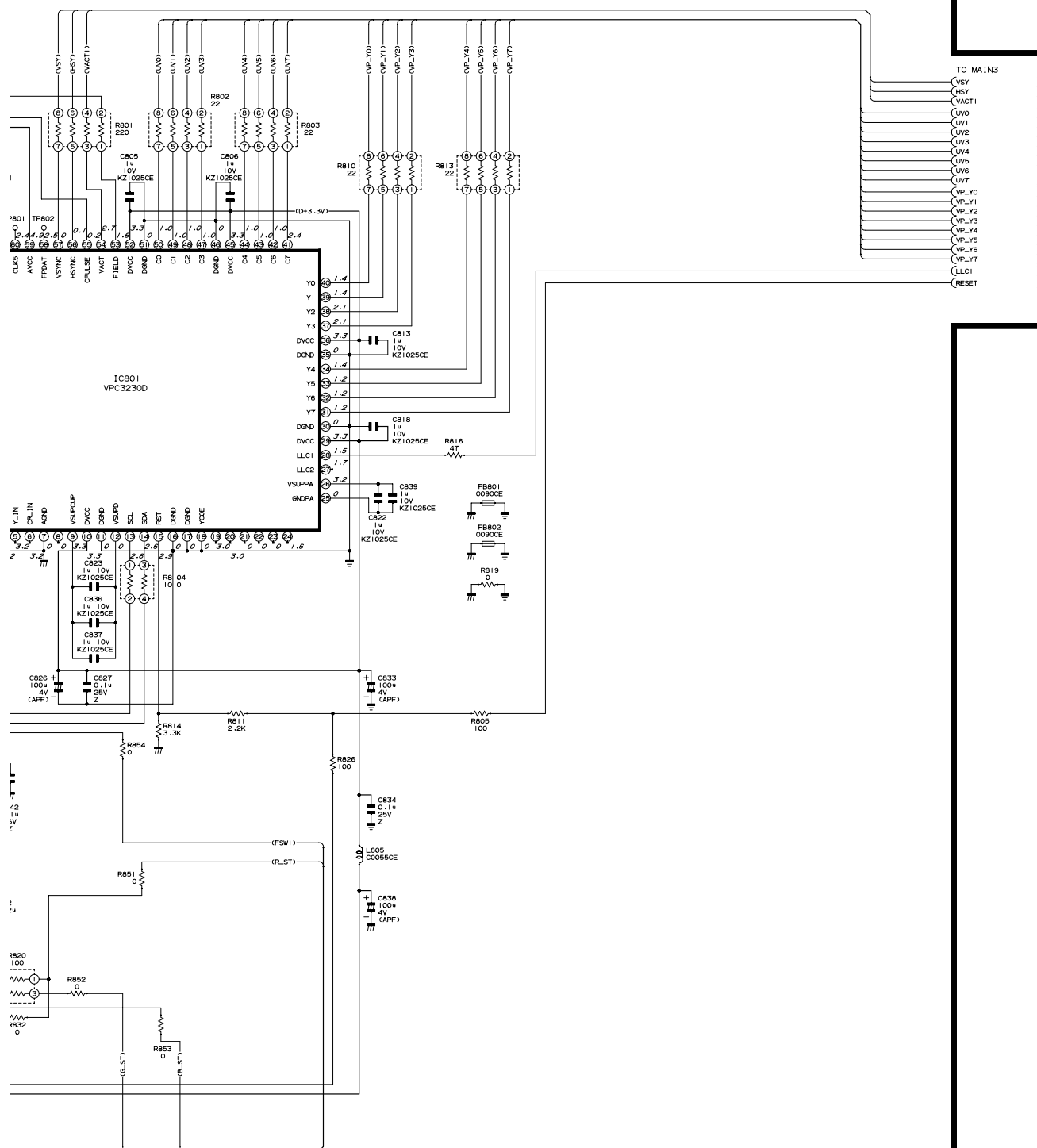
D

C

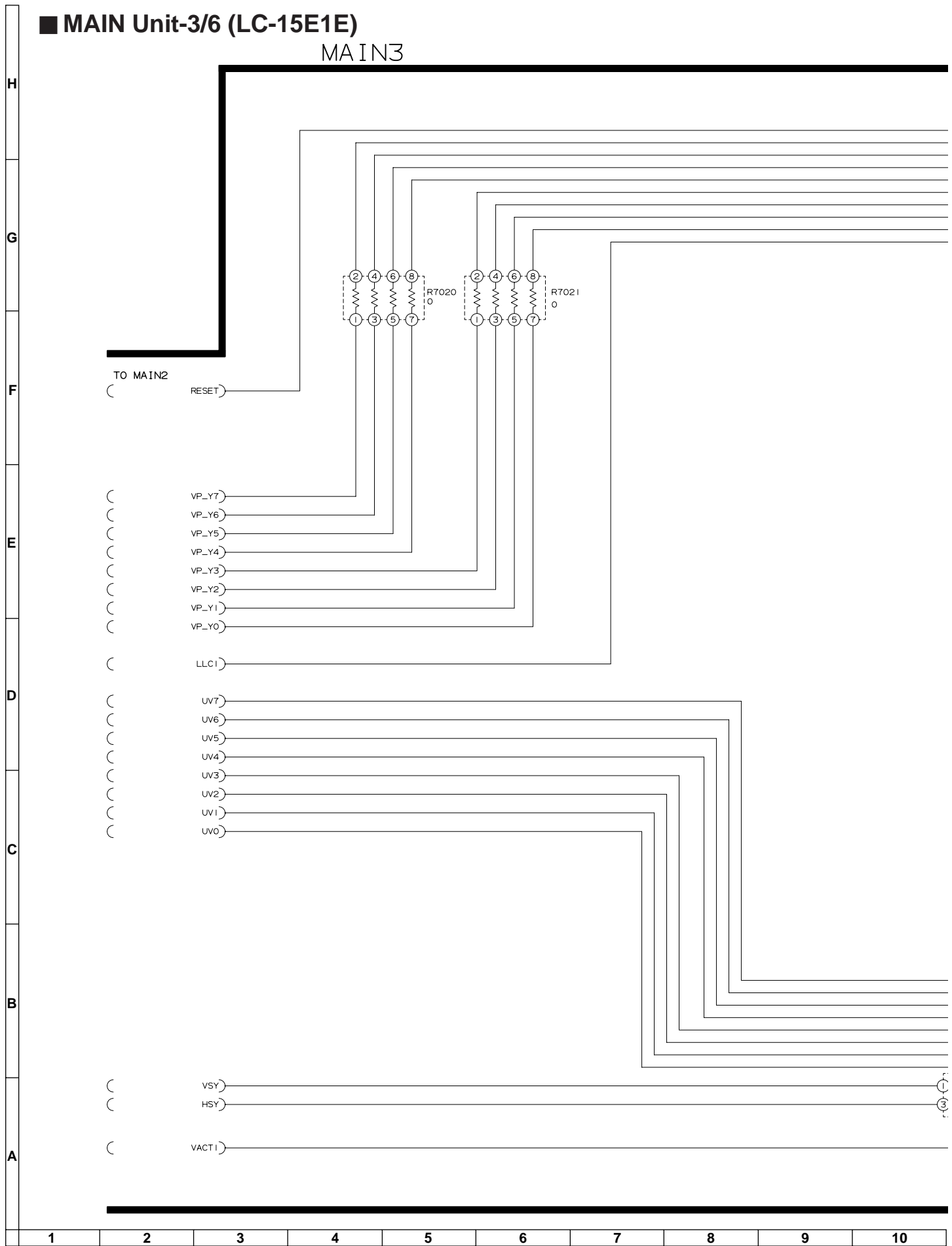
B

A

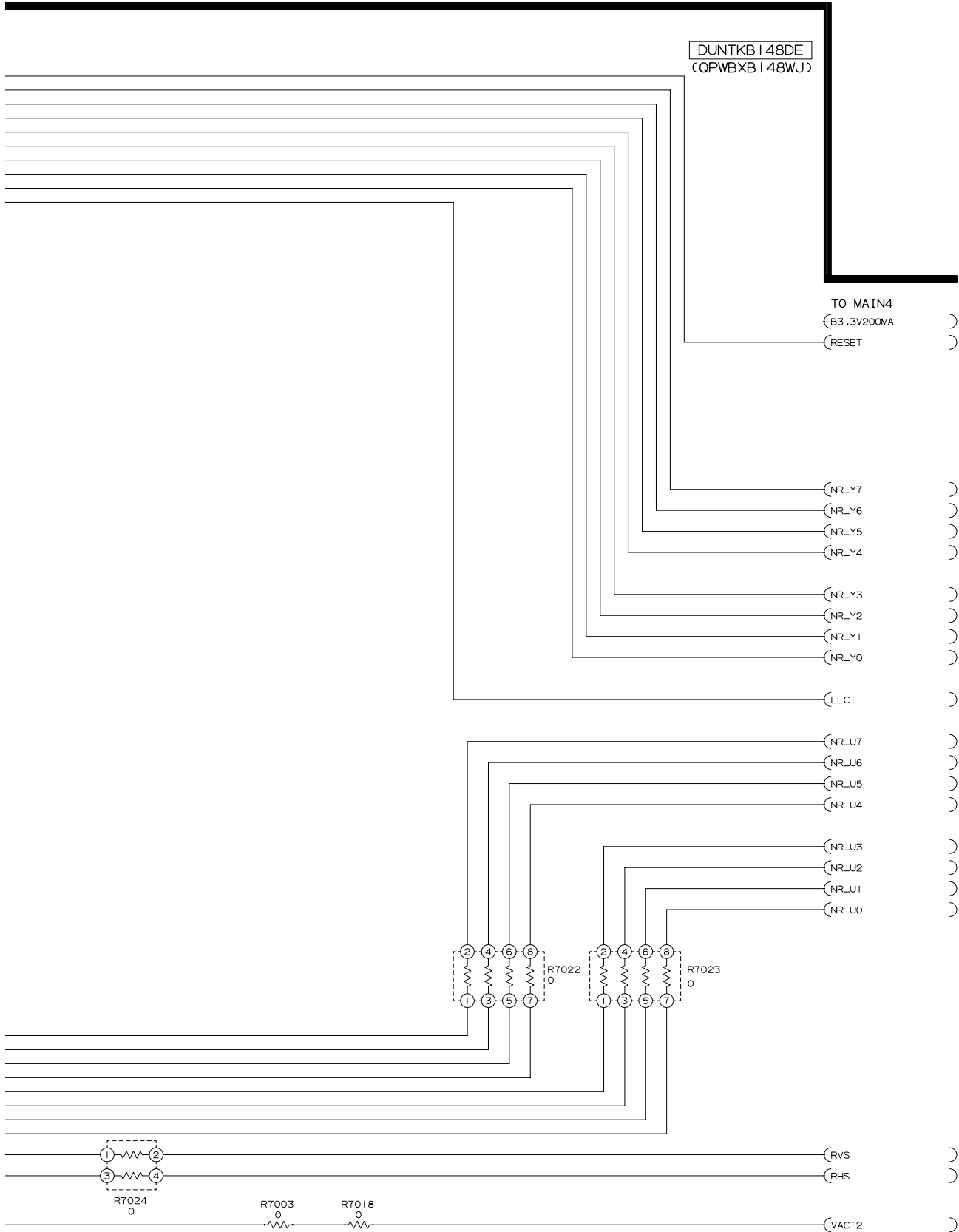




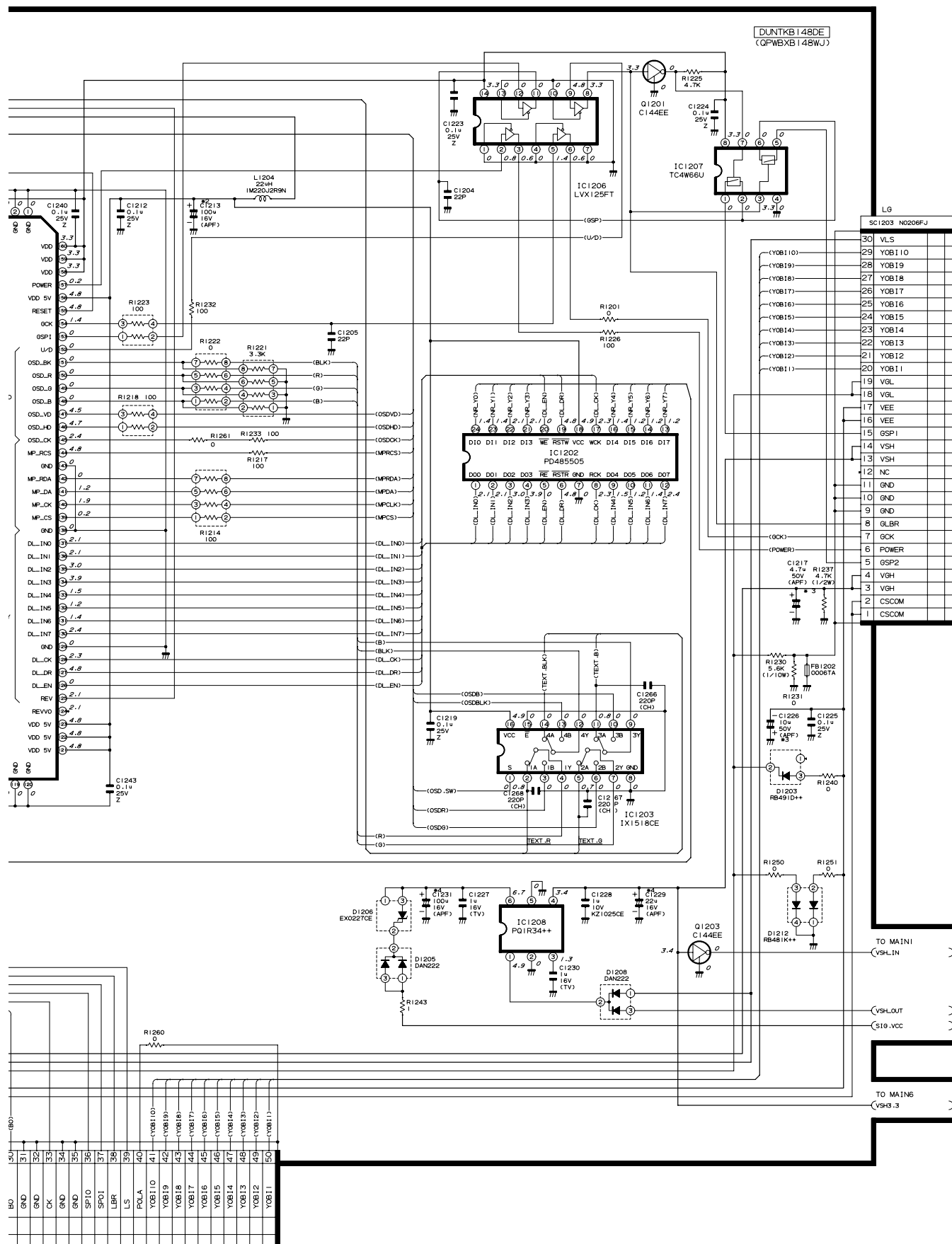
10	11	12	13	14	15	16	17	18	19
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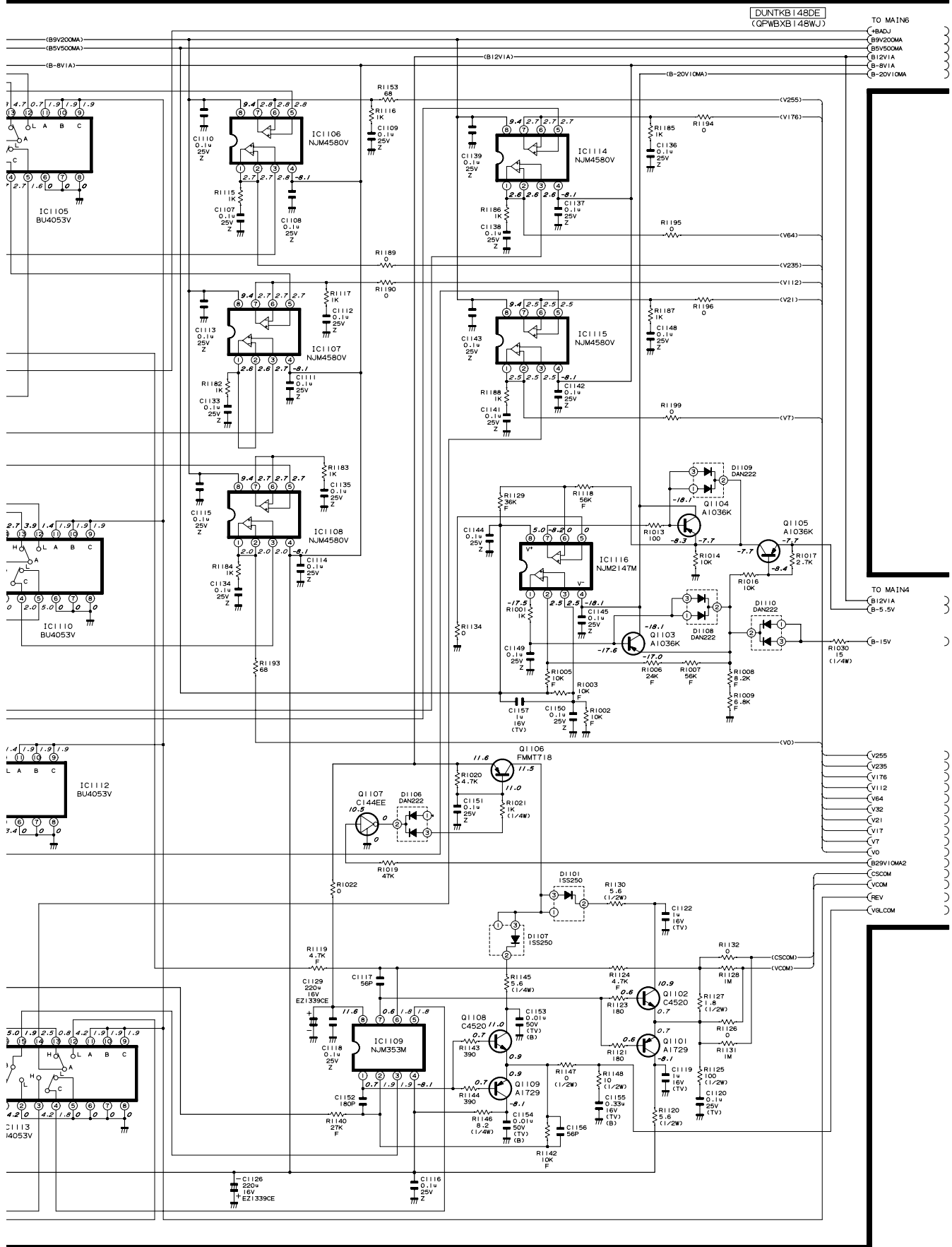












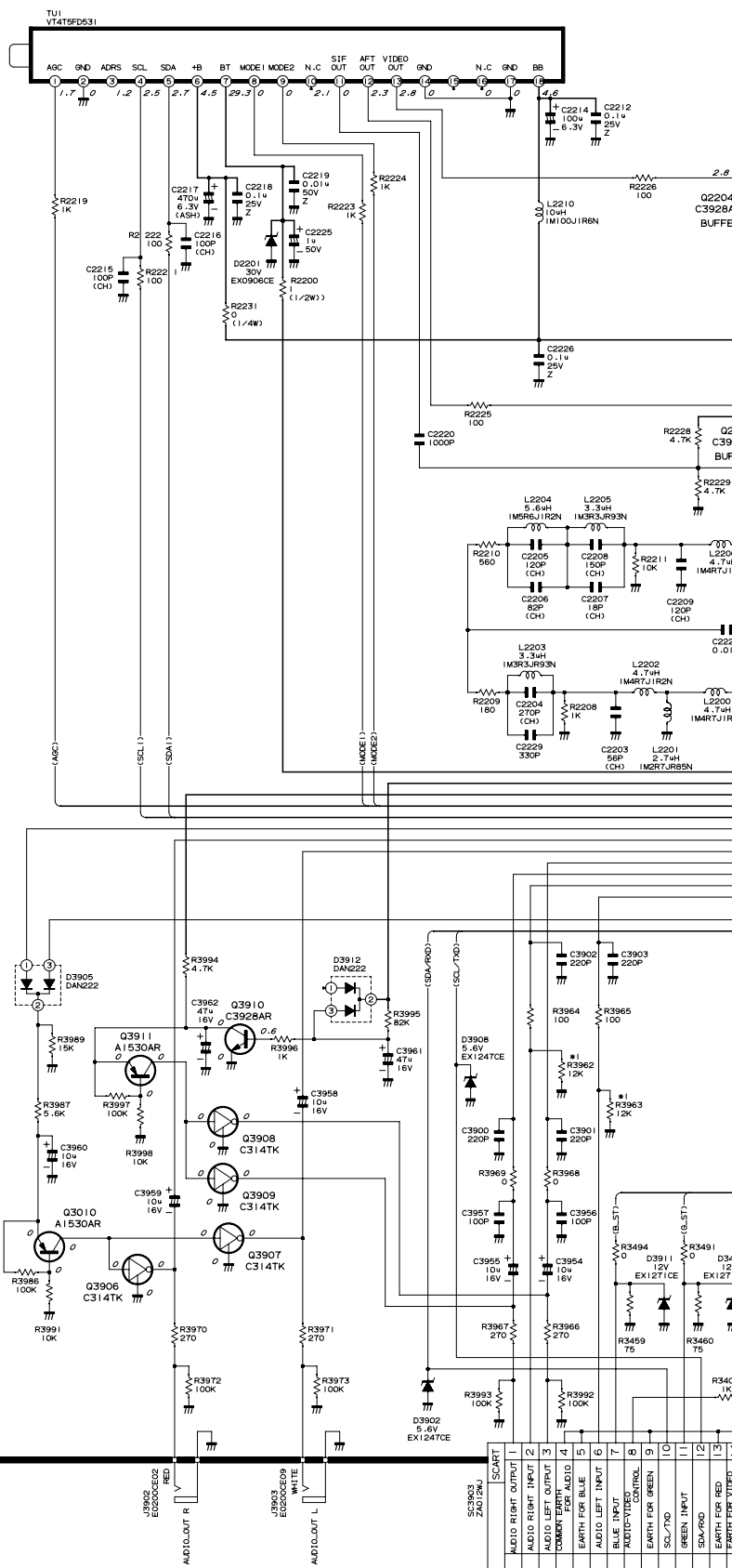
10	11	12	13	14	15	16	17	18	19
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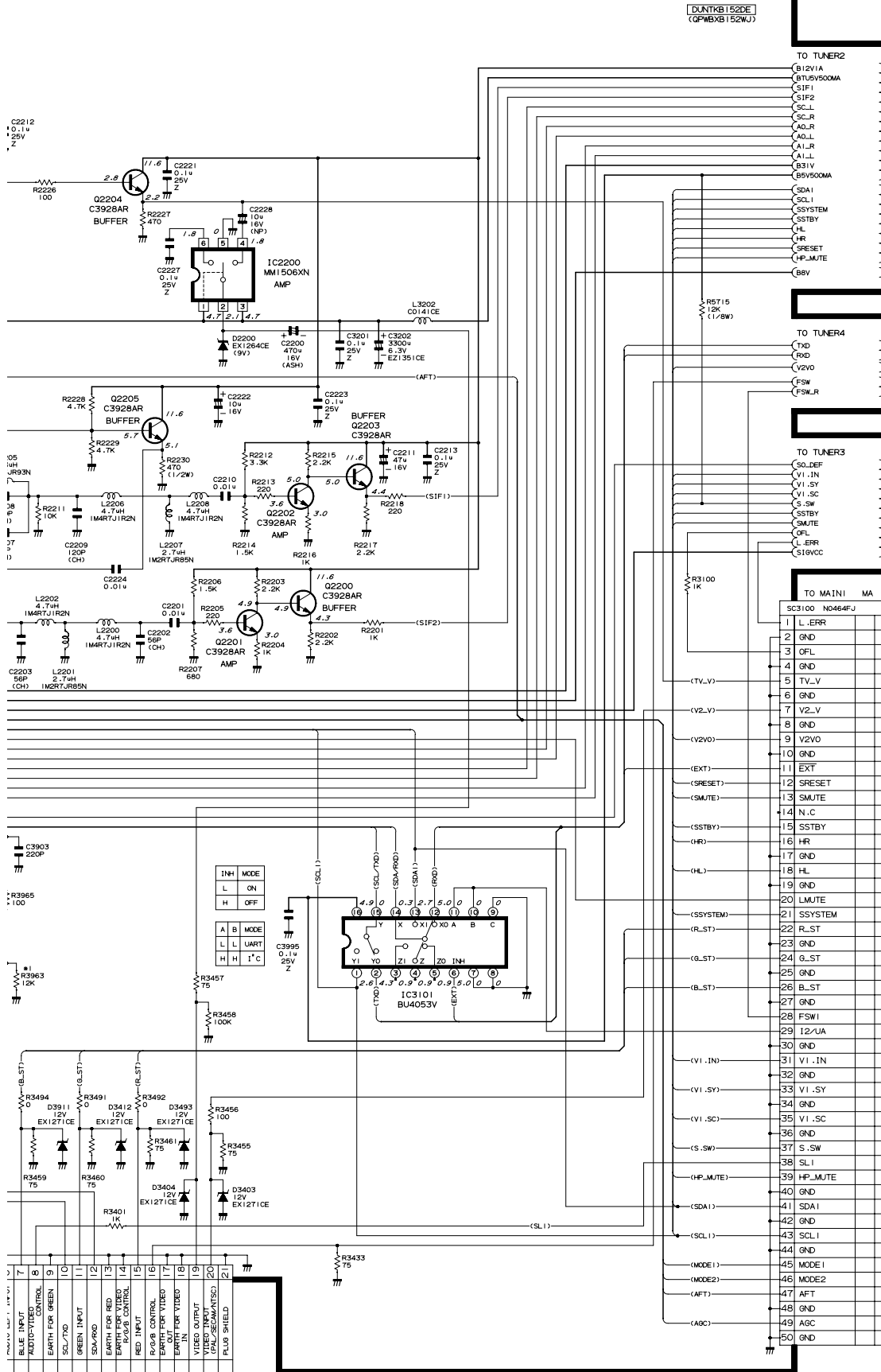


# ■ TUNER Unit-1/4 (LC-13E1E)

TUNER 1

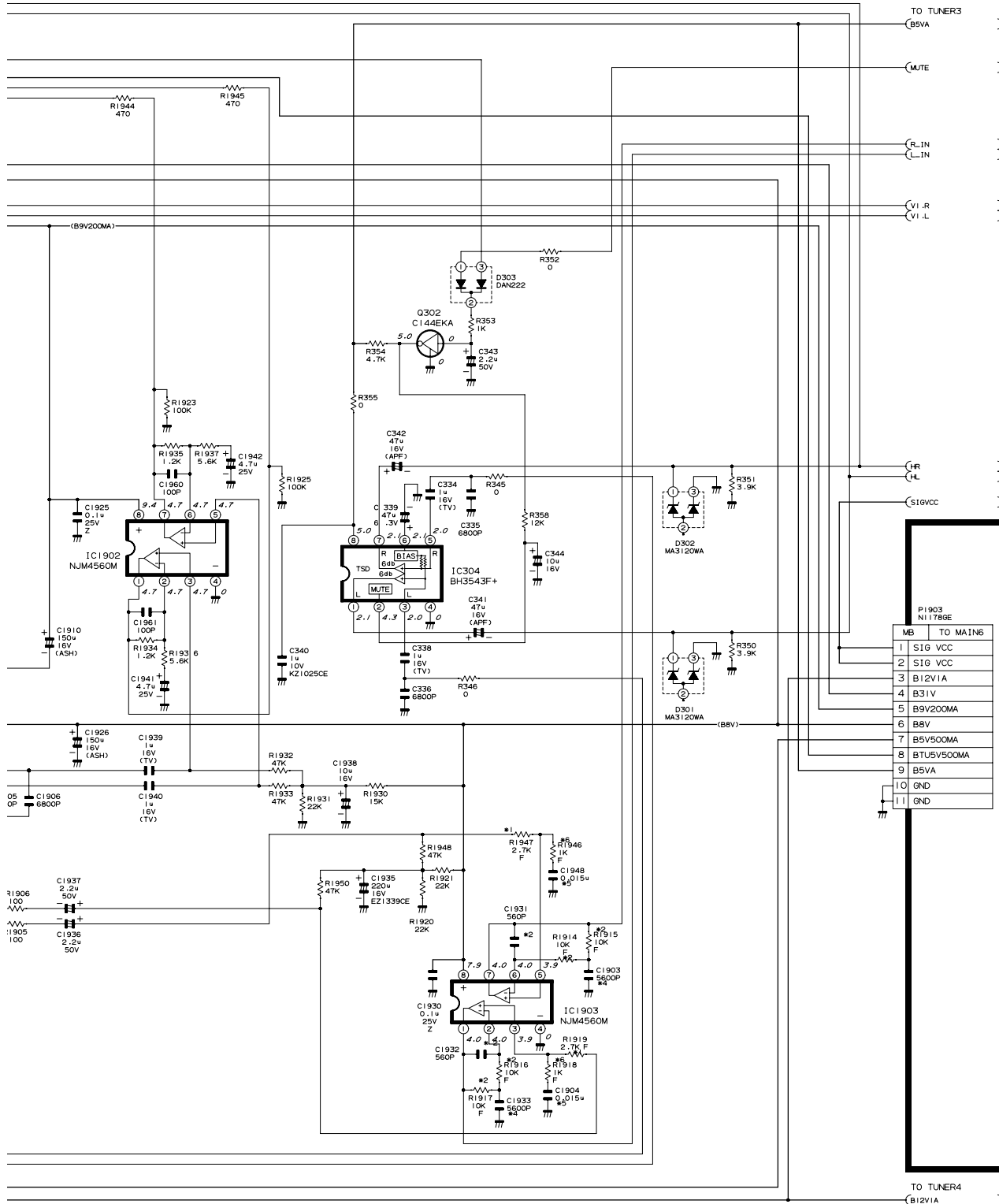








DUNTKB152DE  
(QPWBXB152WJ)



# ■ TUNER Unit-3/4 (LC-13E1E)

TUNER 3

H

G

F

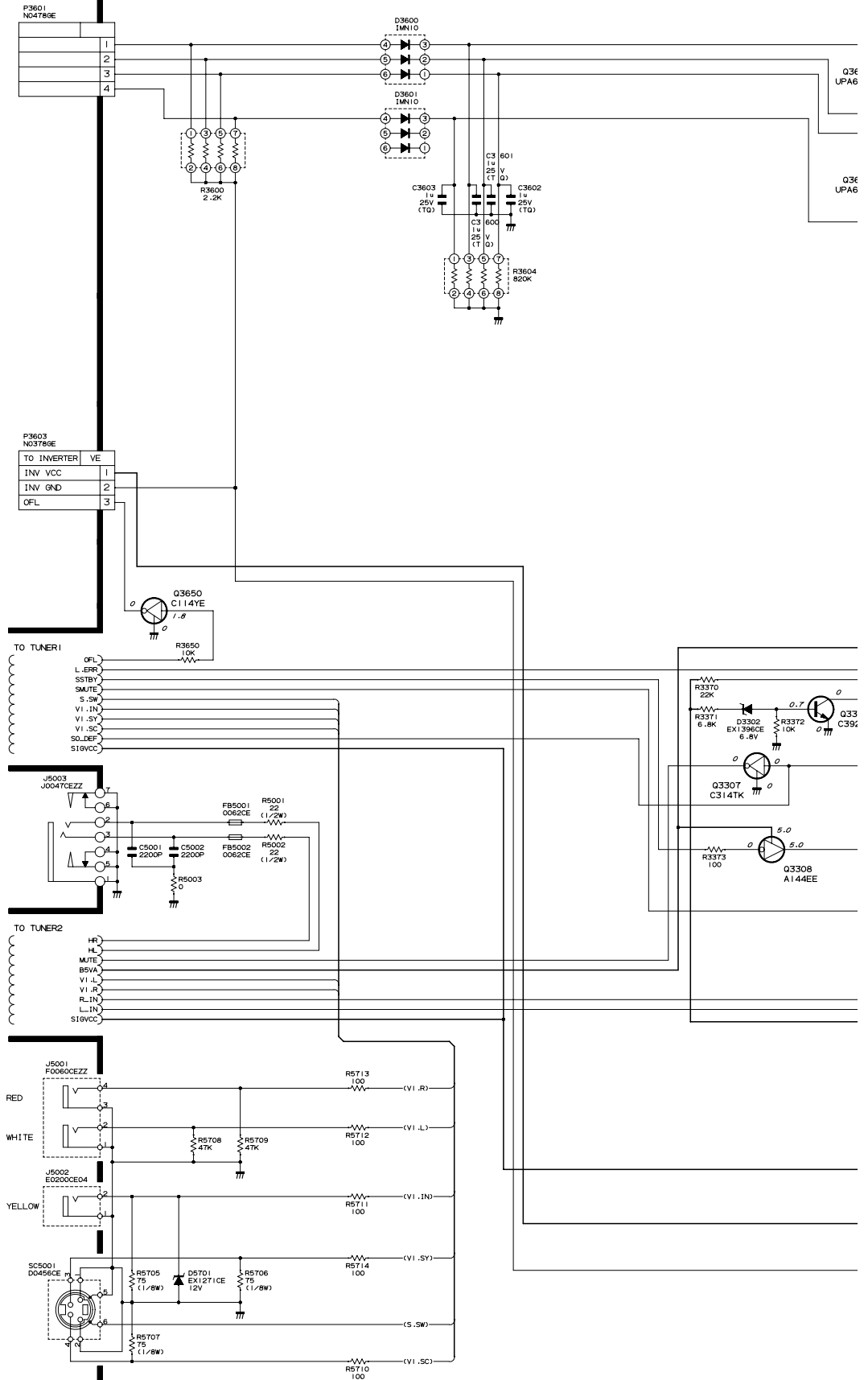
E

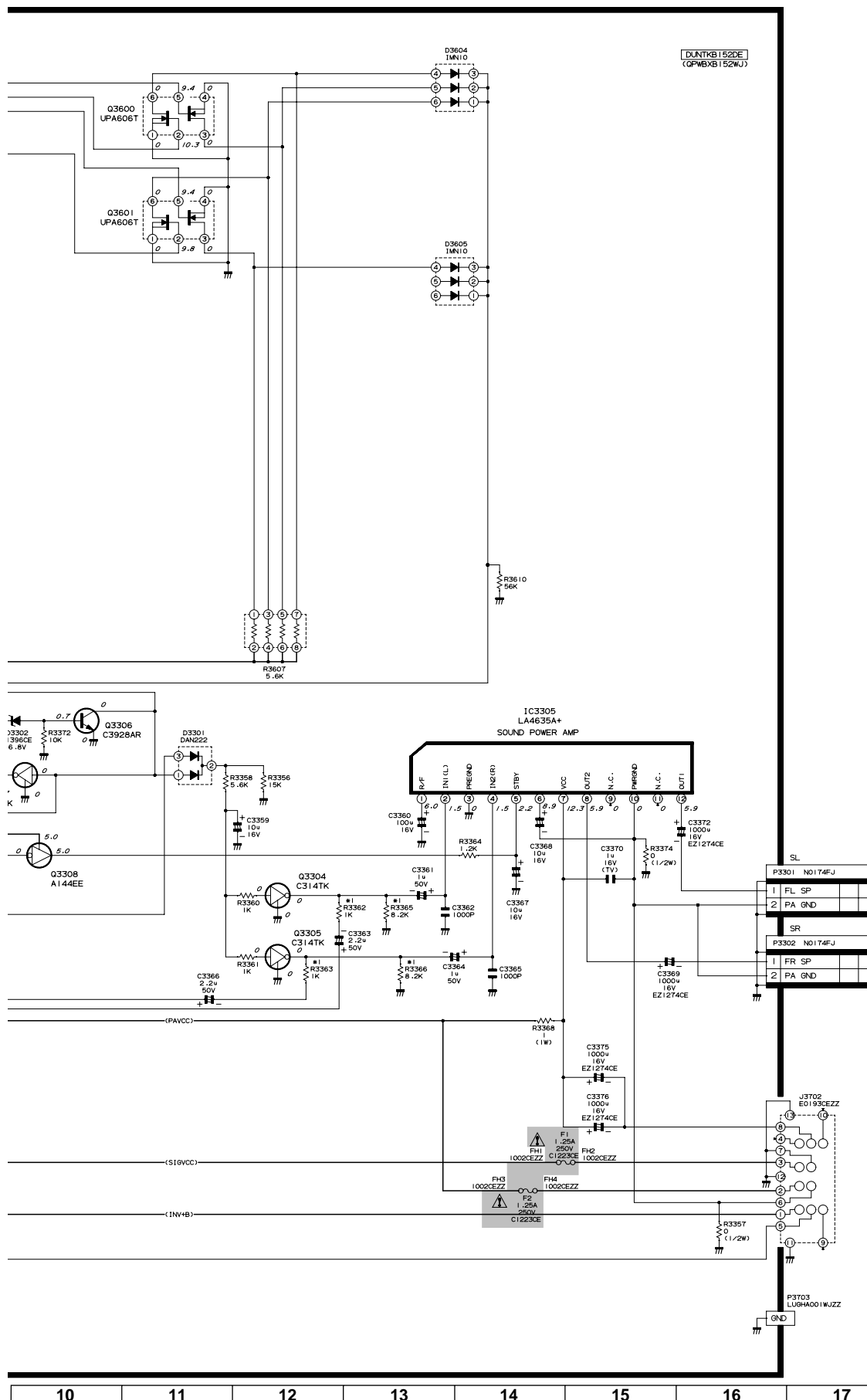
D

C

B

A





## ■ TUNER Unit-4/4 (LC-13E1E)

TUNER 4

H

G

F

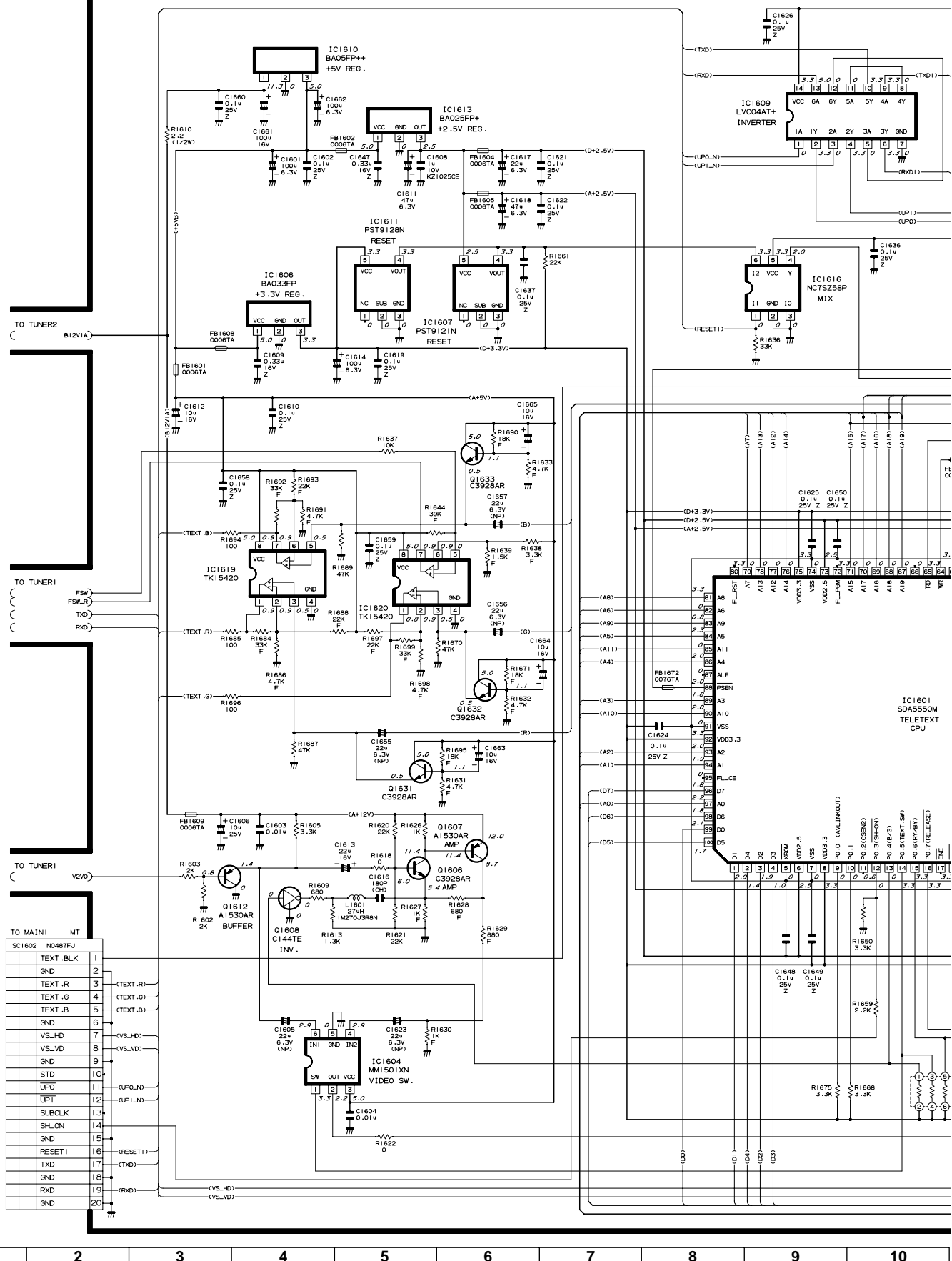
E

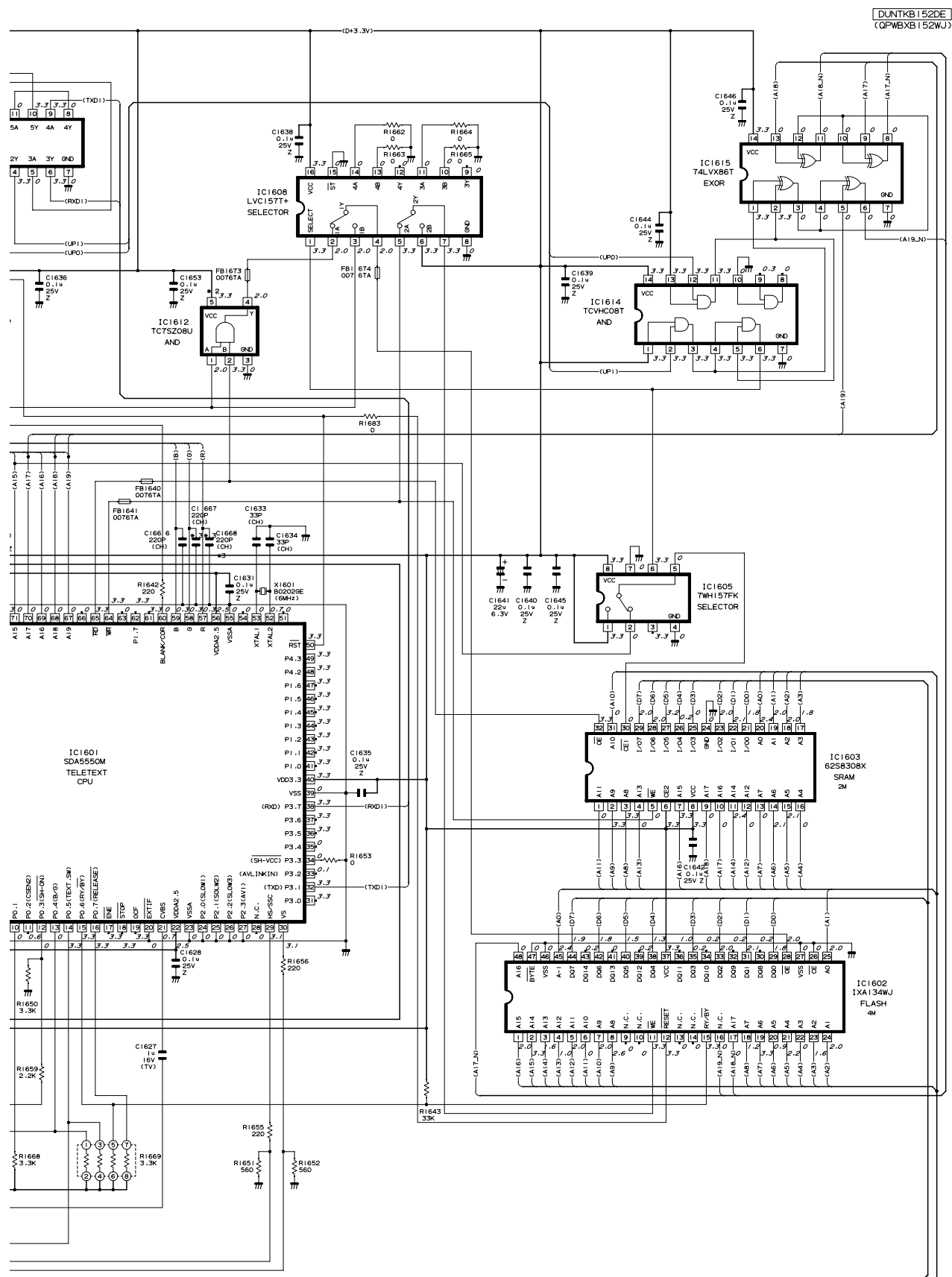
D

C

B

A

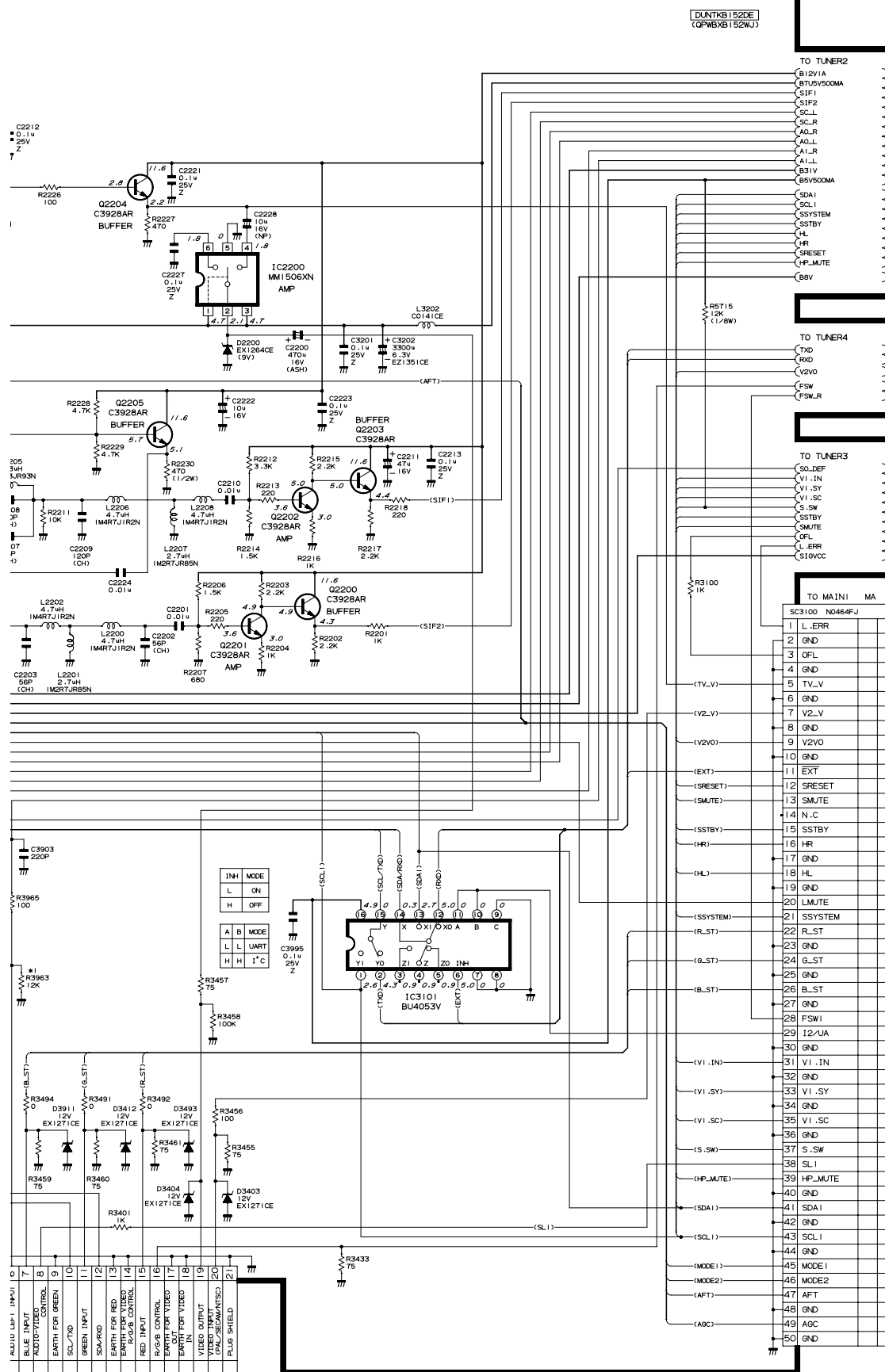




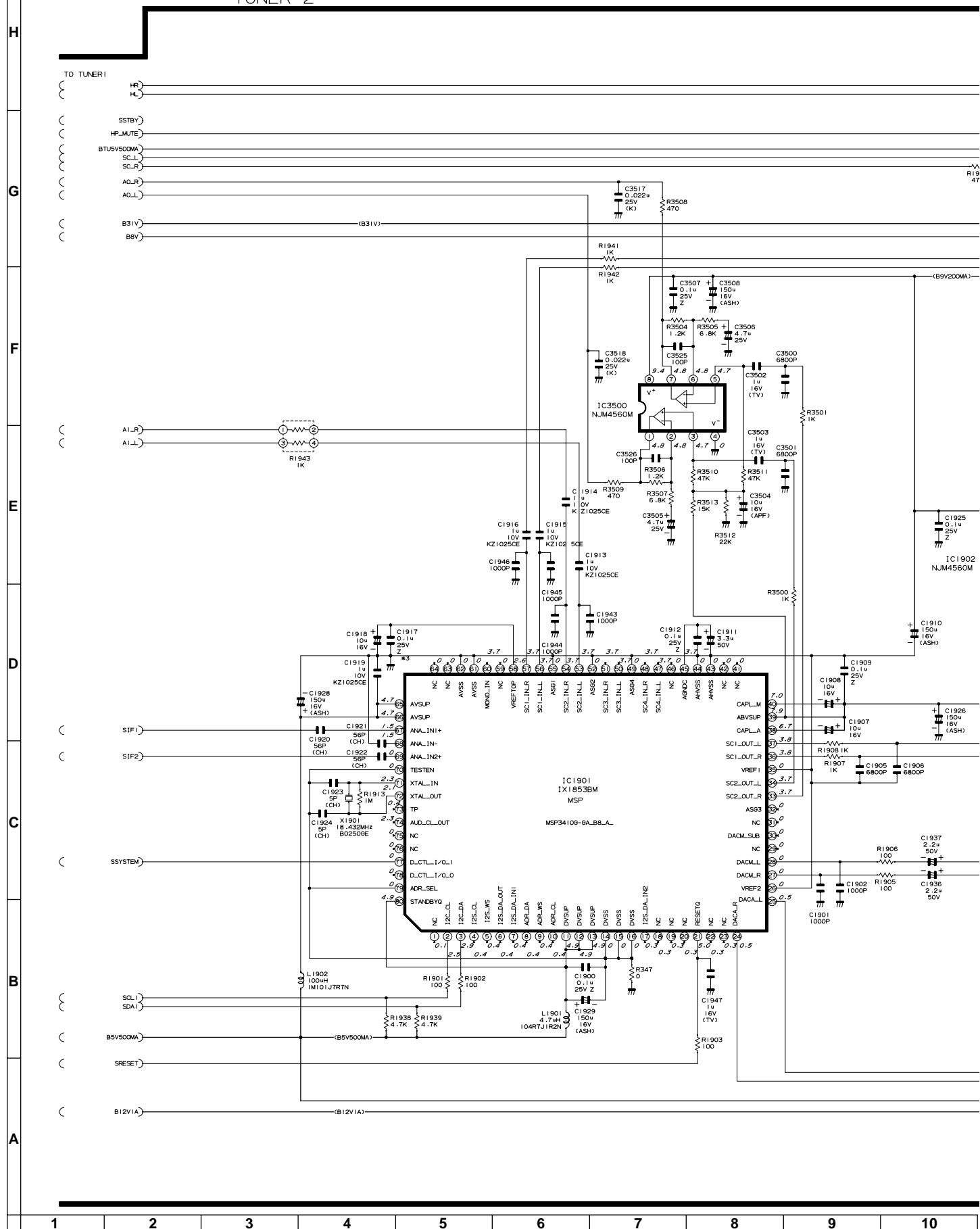
A	B	C	D	E	F	G	H
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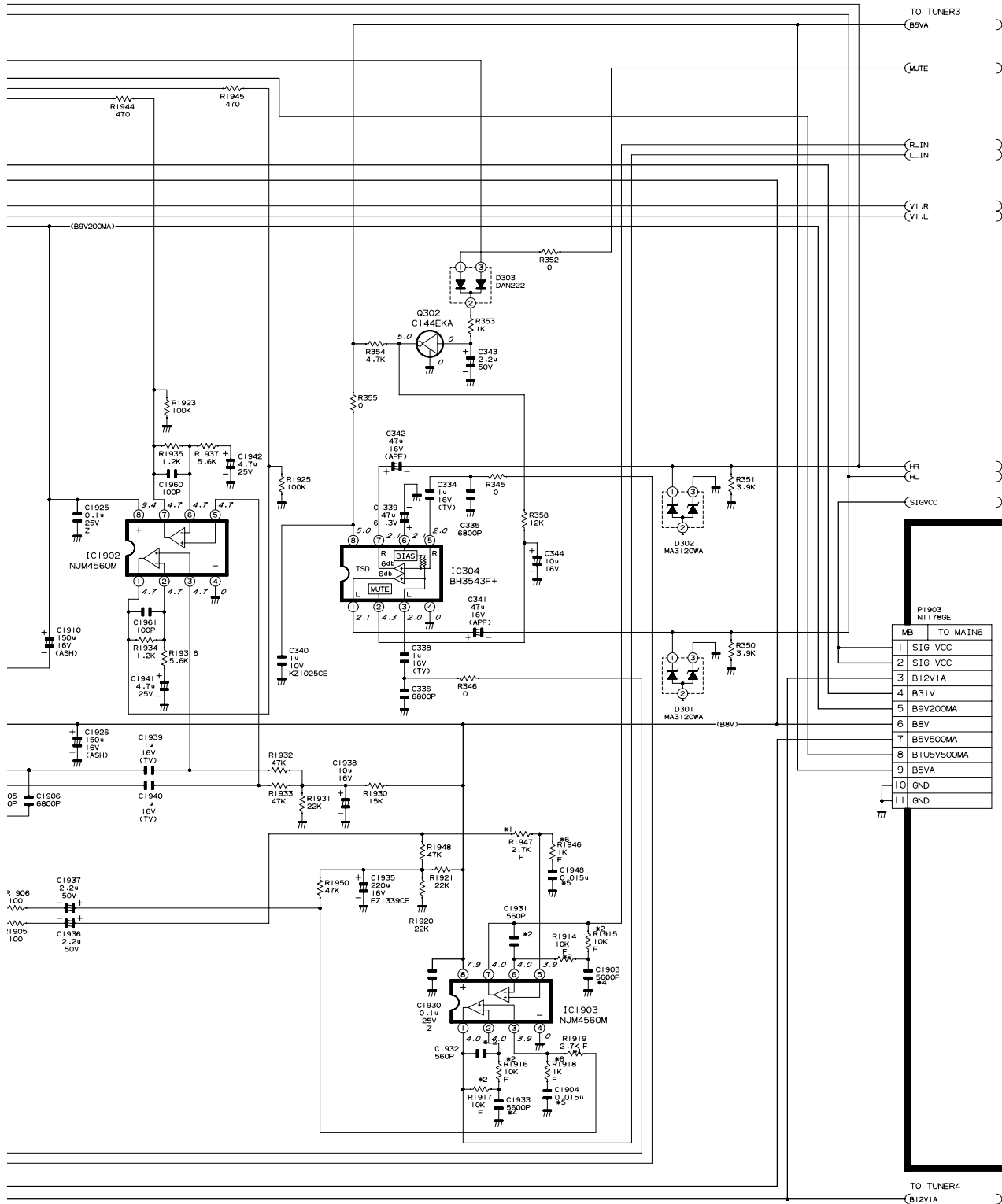




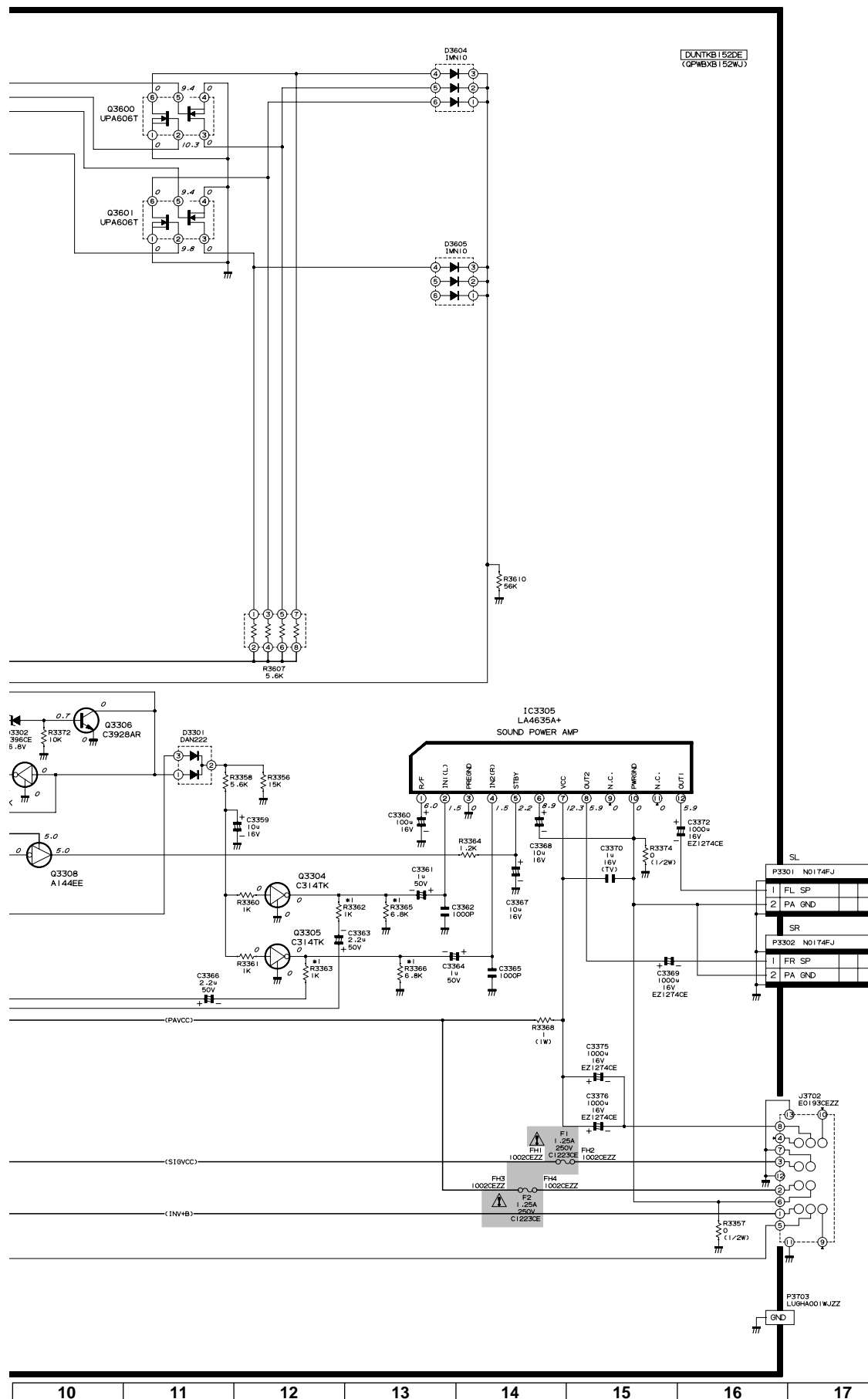
## TUNER 2



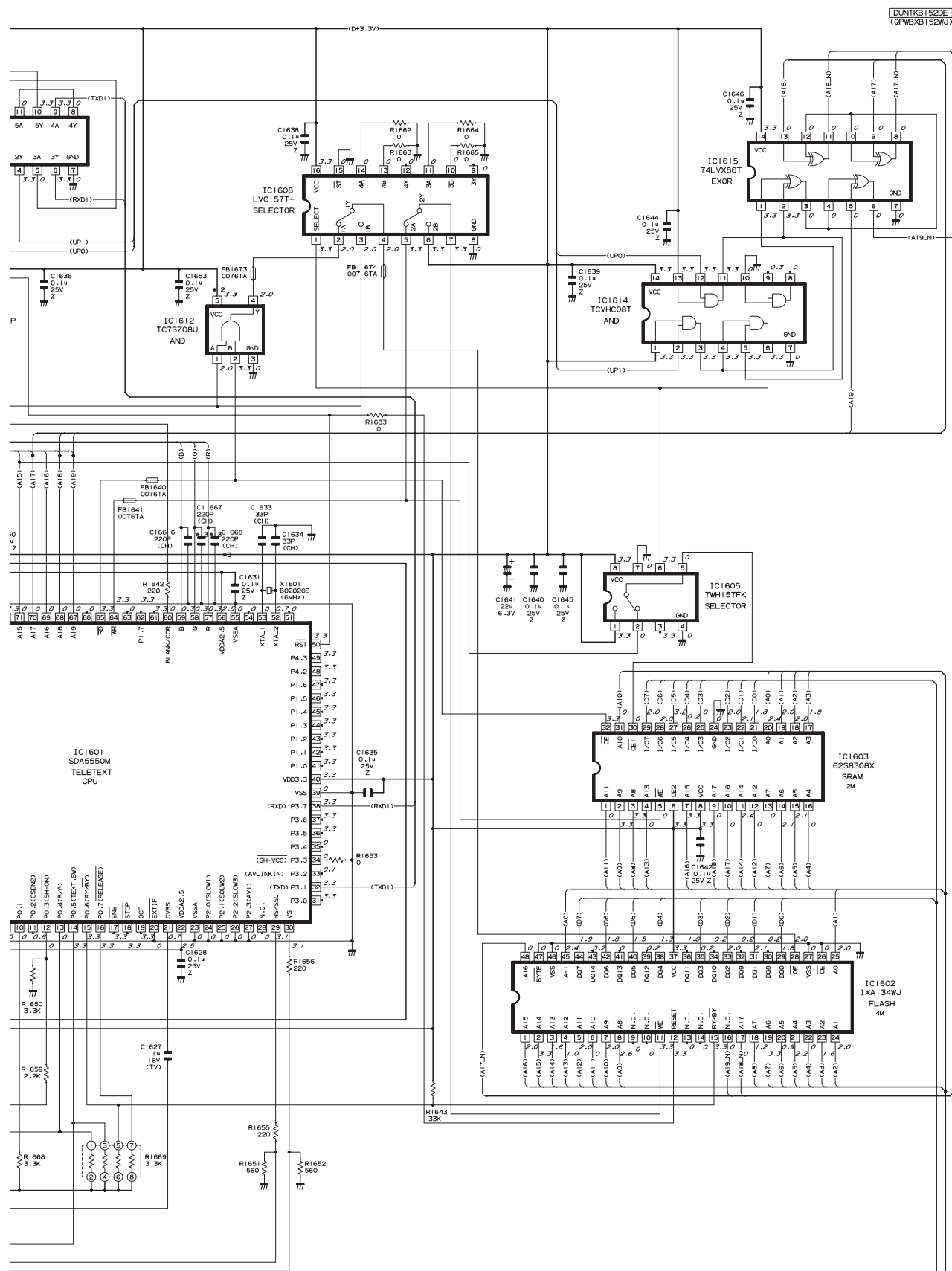
DUNTKB152DE  
(QFWBXB152WJ)





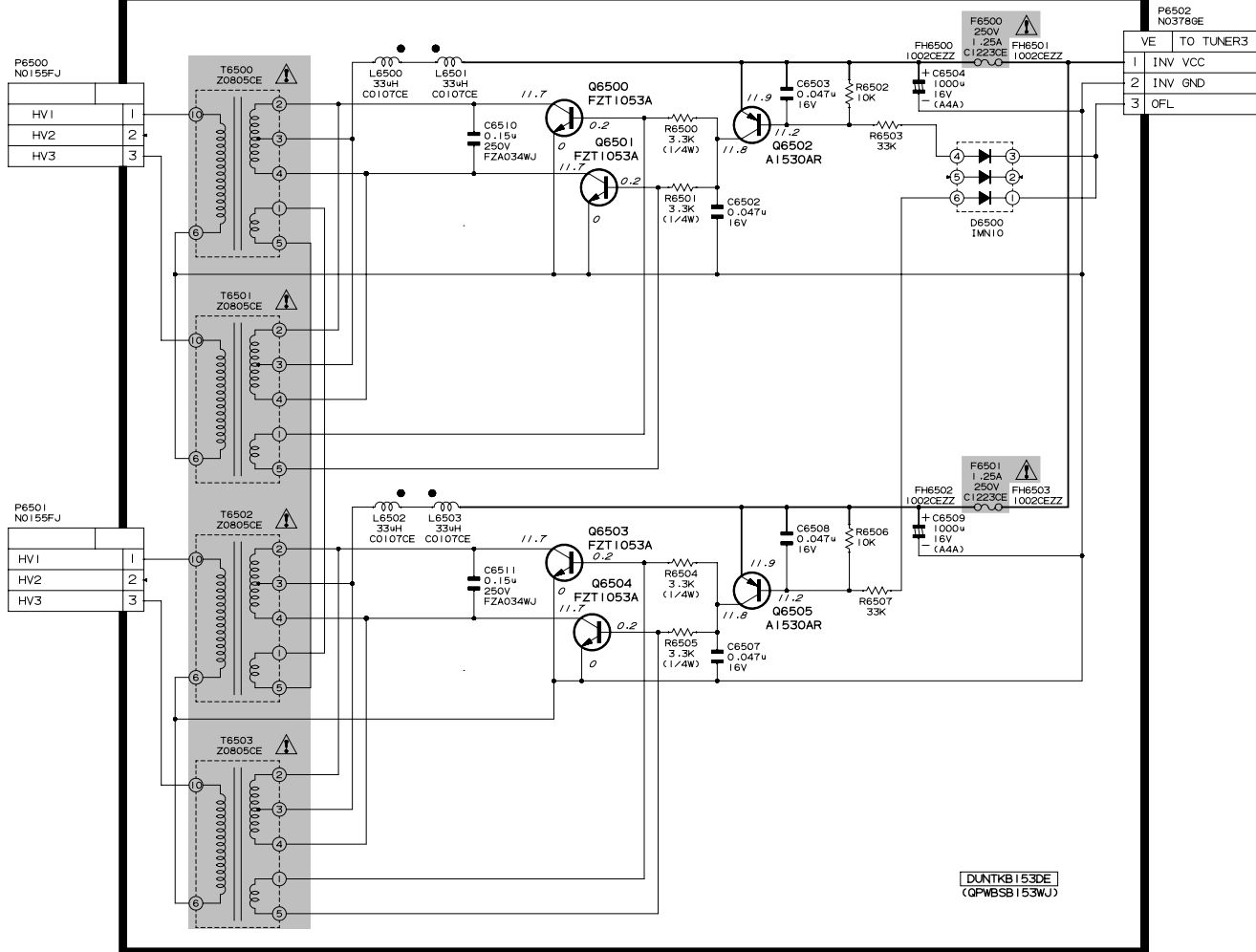






# INVERTER Unit

## INVERTER

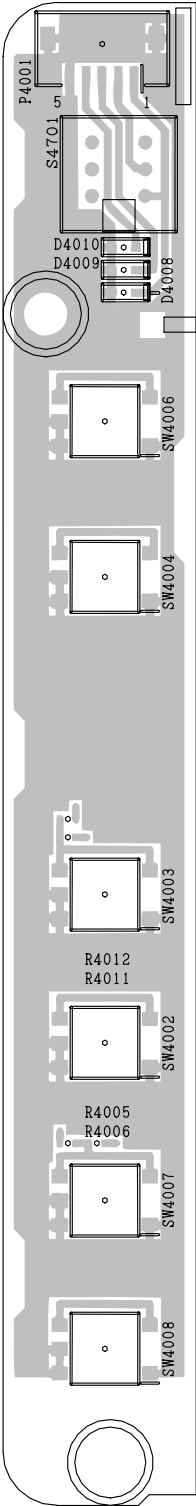




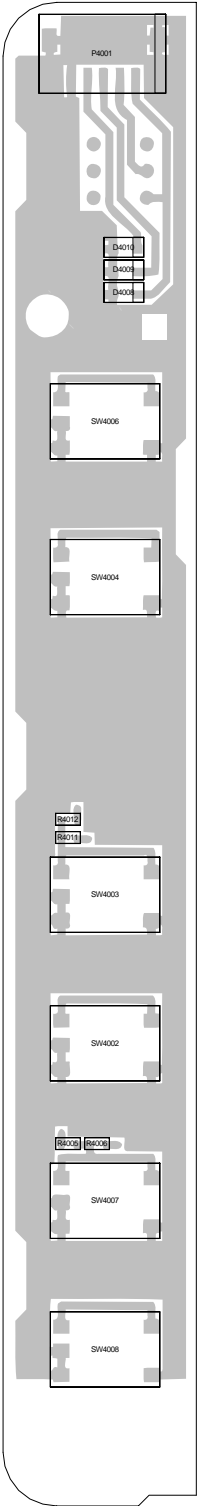
PRINTED WIRING BOARD ASSEMBLIES

H  
G  
F  
E  
D  
C  
B  
A

1 2 3 4 5 6

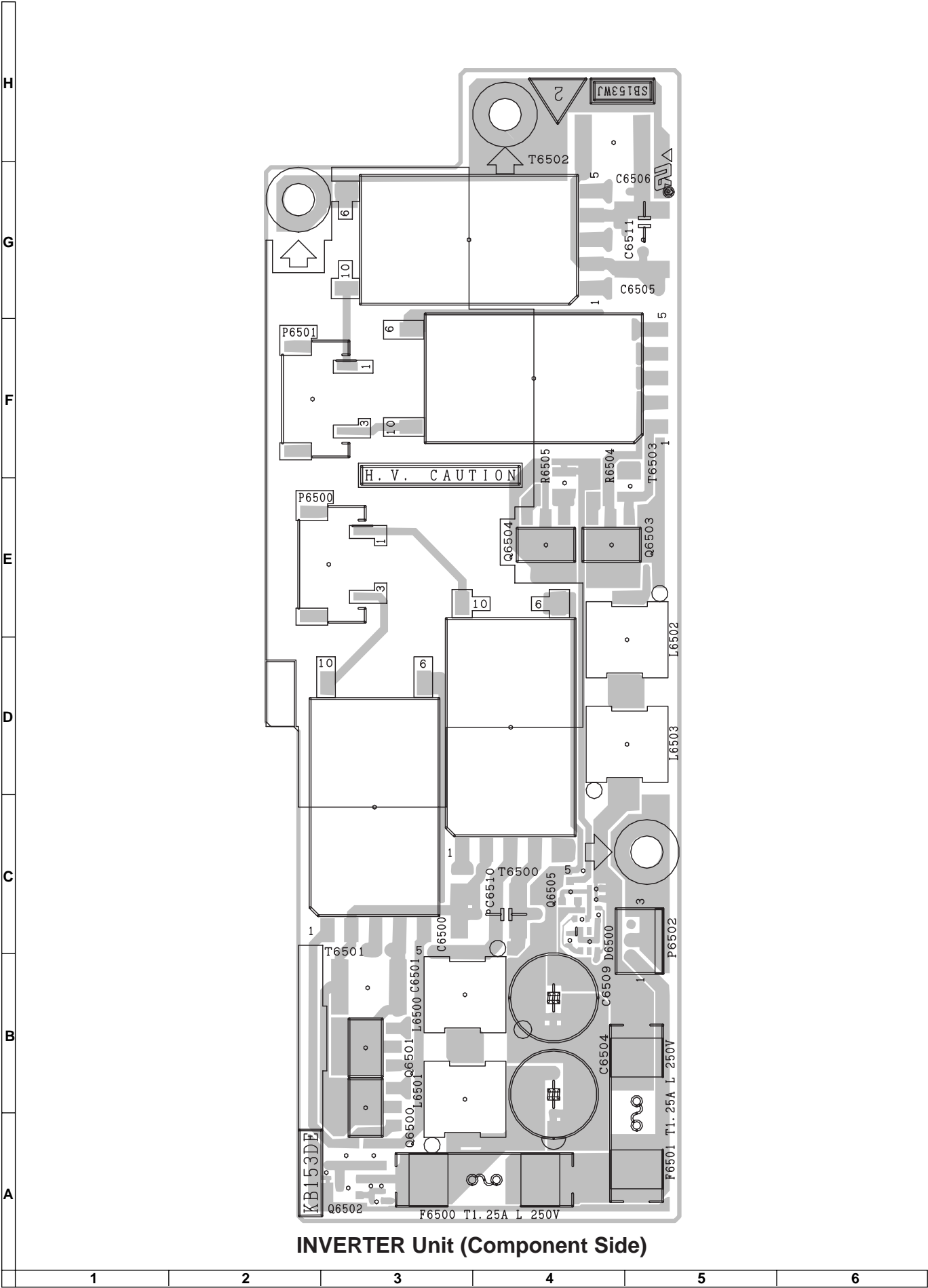


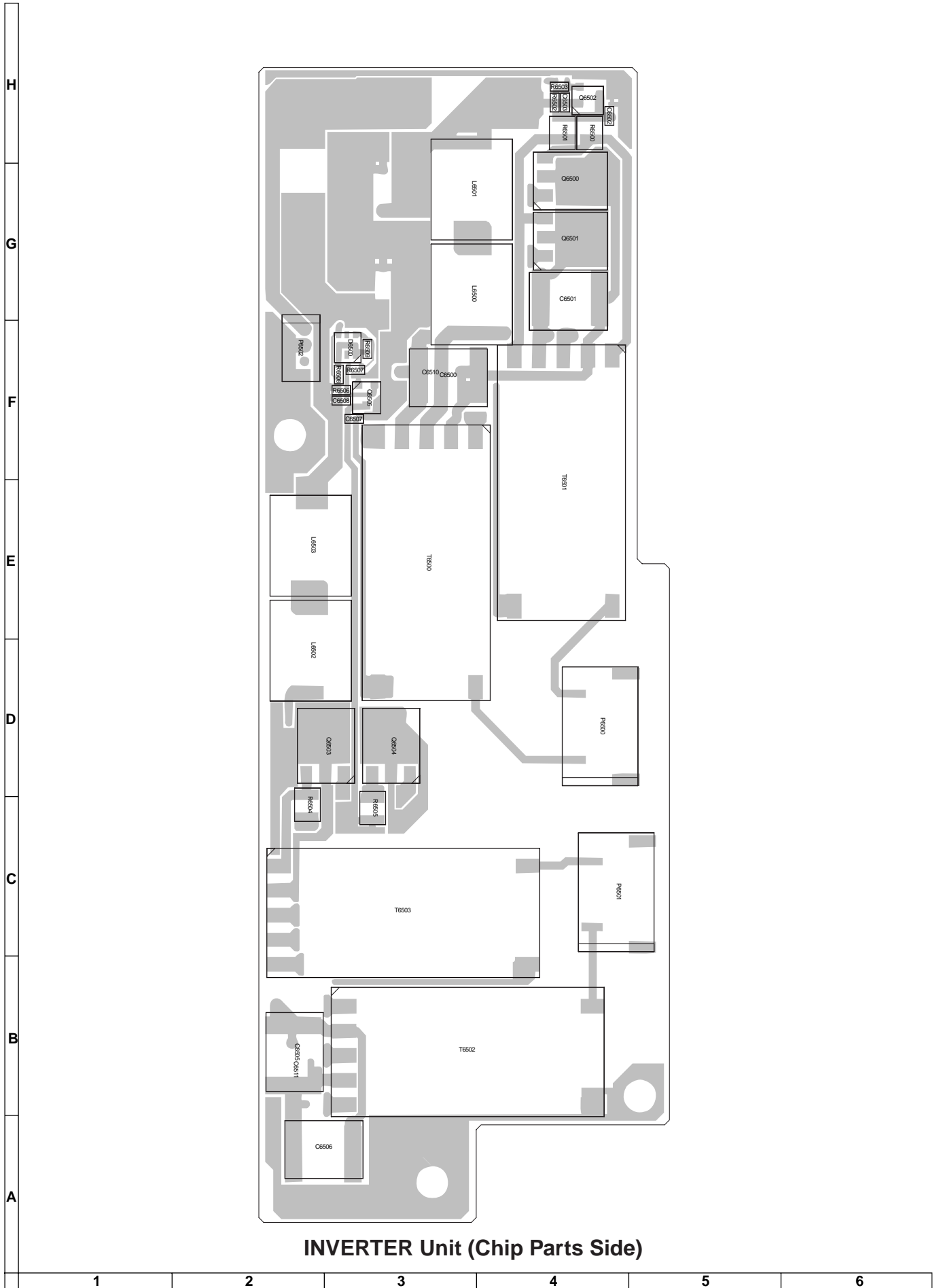
(Component Side)

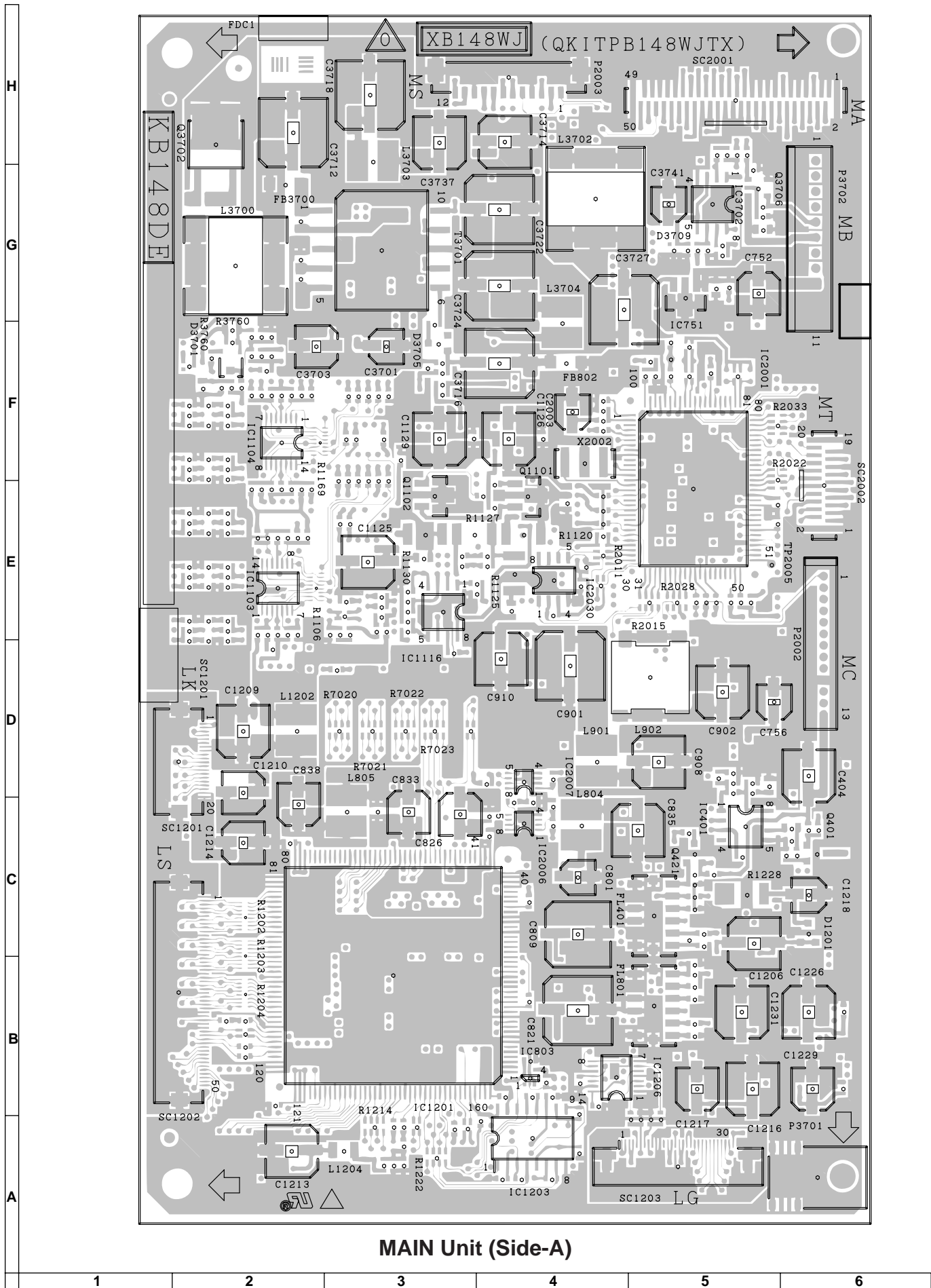


(Chip Parts Side)

OPERATION Unit  
(QPWBSB156WJN3)







MAIN Unit (Side-A)



H

G

F

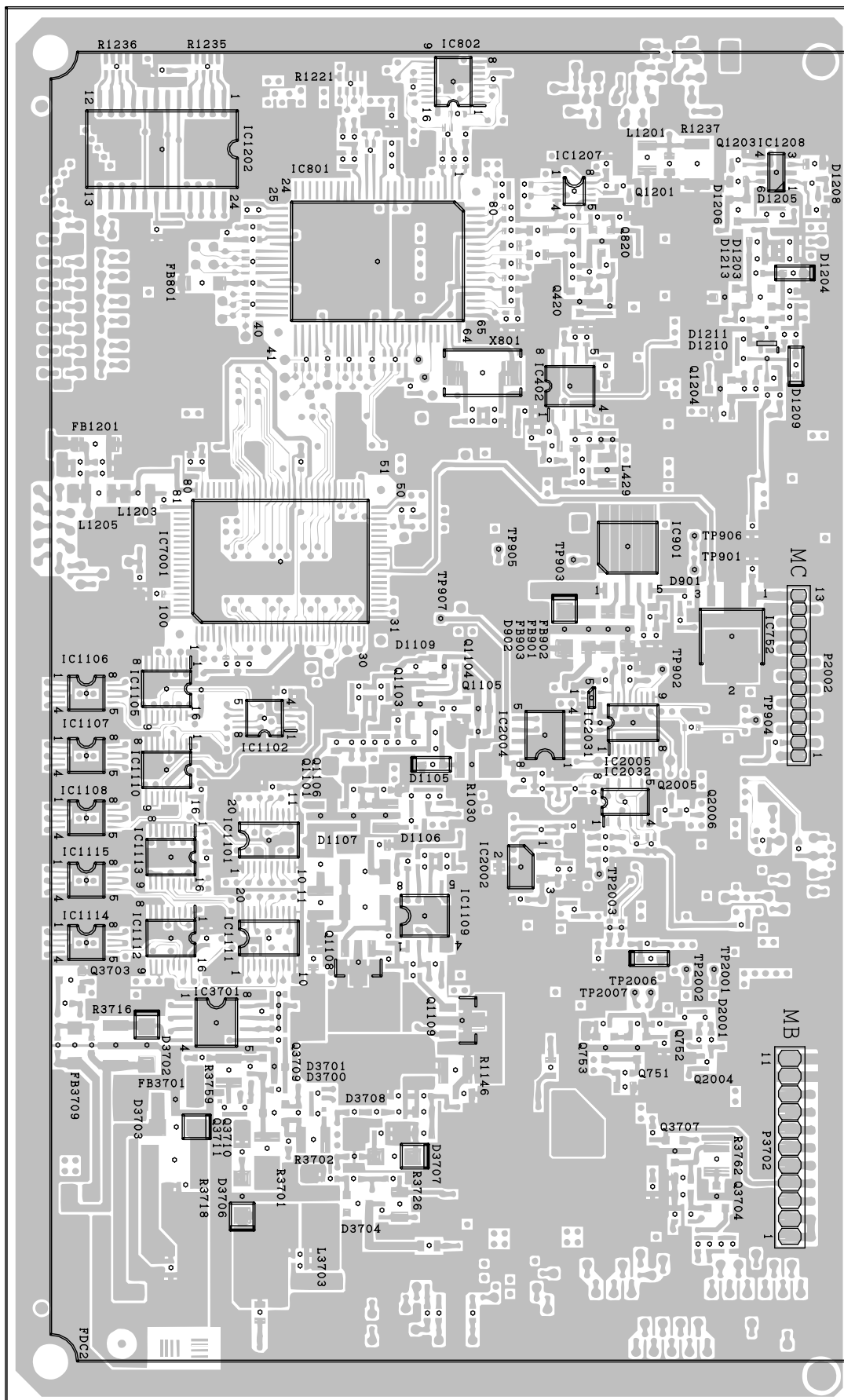
E

D

C

B

A



MAIN Unit (Side-B)

1

2

3

4

5

6



H

G

F

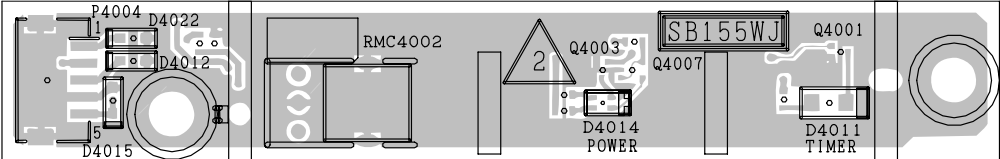
E

D

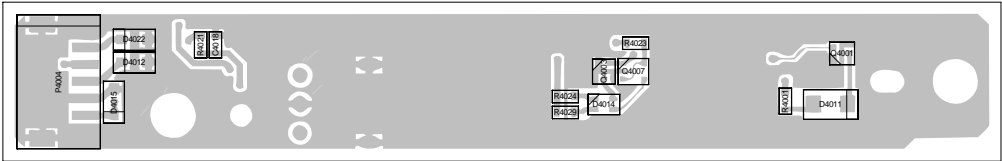
C

B

A

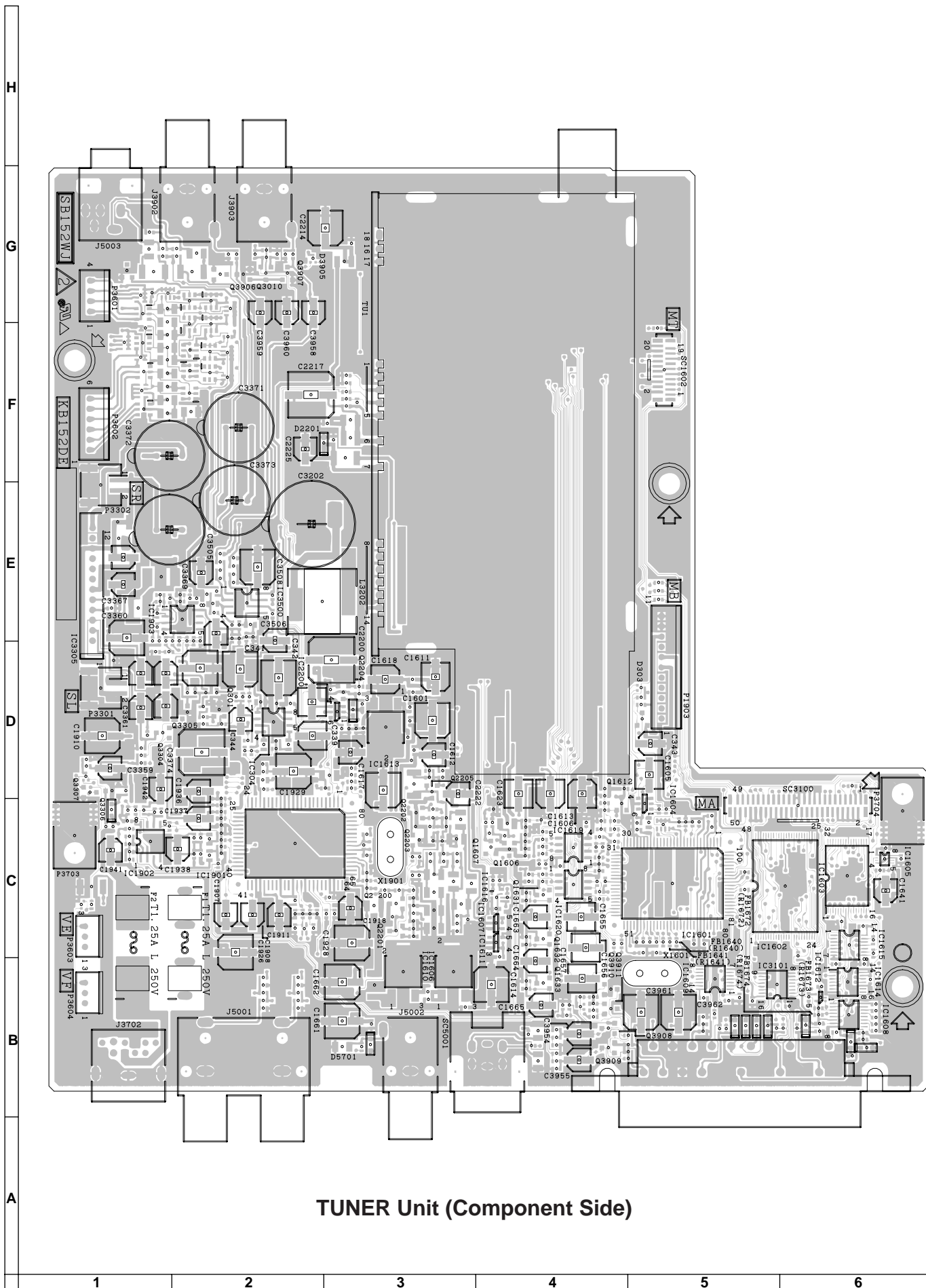


R/C, LED Unit (Component Side)



R/C, LED Unit (Chip Parts Side)





H

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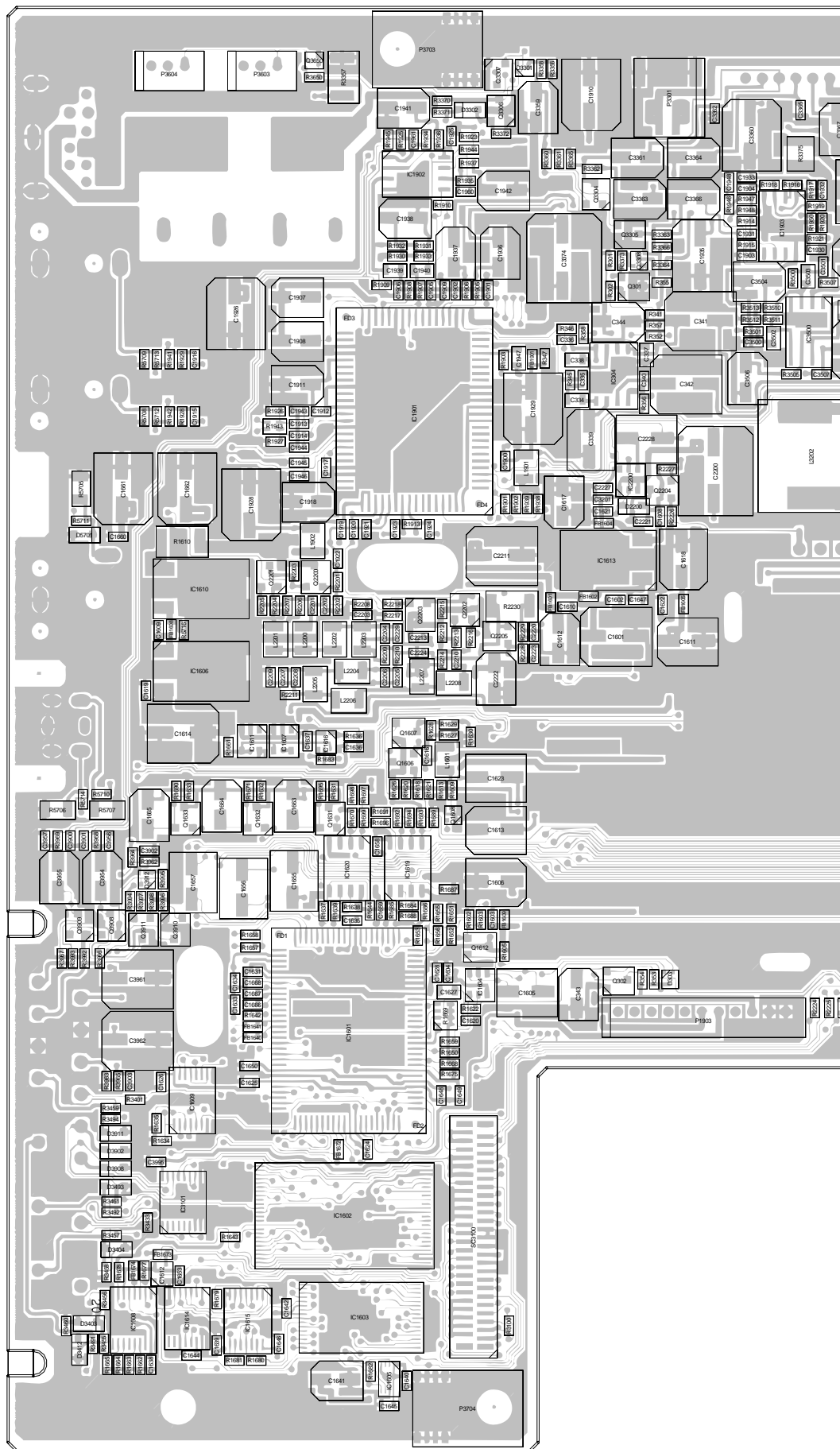
E

D

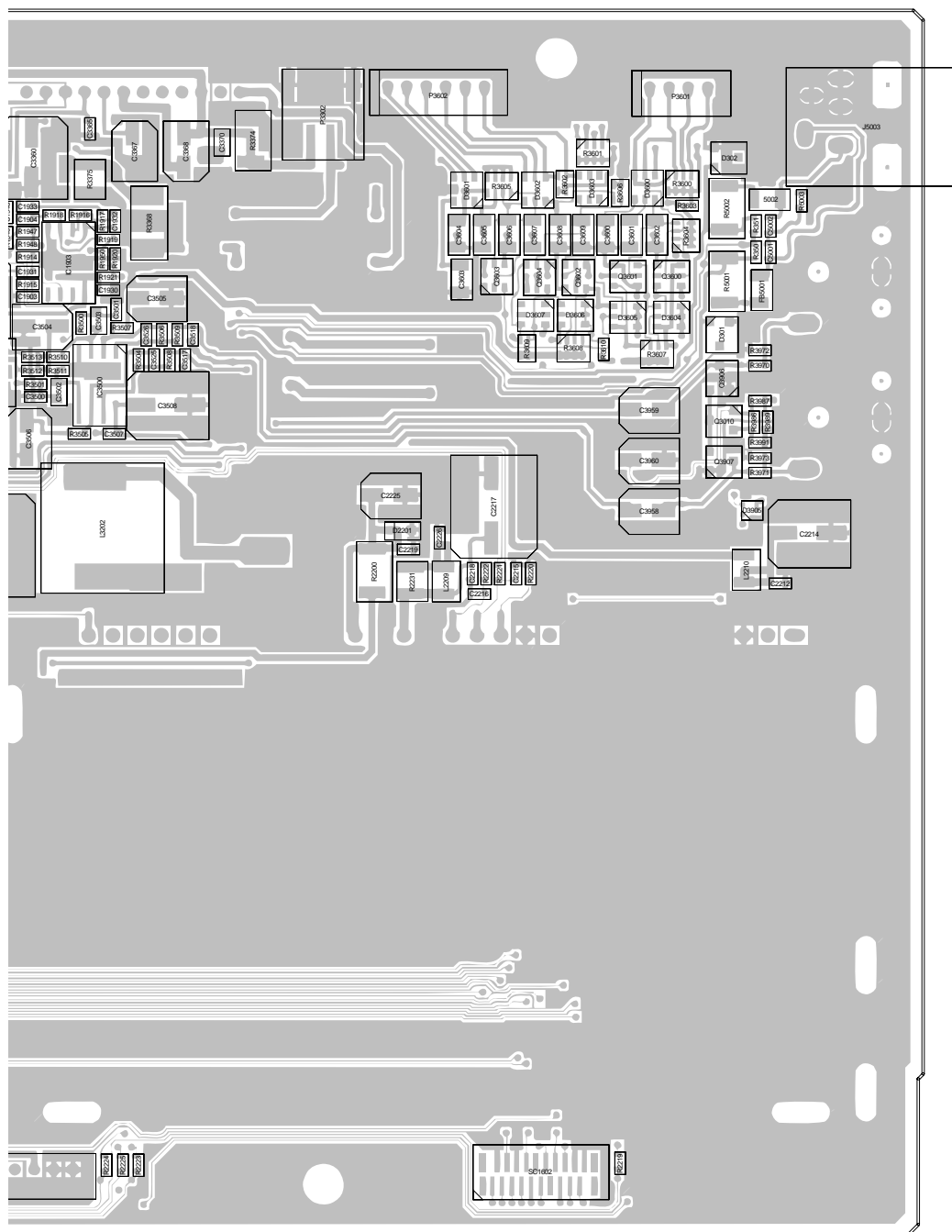
C

B

A




1 2 3 4 5 6 7 8 9 10



### TUNER Unit (Chip Parts Side)

# PARTS LIST

## PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual; electrical components having such features are identified by  and shaded areas in the Replacement Parts Lists and Schematic Diagrams. The use of a substitute replacement part which does not have the same safety characteristic as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

### "HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

- |                 |                |
|-----------------|----------------|
| 1. MODEL NUMBER | 2. REF. NO.    |
| 3. PART NO.     | 4. DESCRIPTION |

★ MARK: SPARE PARTS-DELIVERY SECTION

Ref. No.	Part No.	★	Description	Code
<b>PRINTED WIRING BOARD ASSEMBLIES</b> <b>(NOT REPLACEMENT ITEM)</b>				

#### LC-13E1E

DUNTKB148FE10	—	MAIN Unit	—
DUNTKB152DE07	—	TUNER Unit	—
DUNTKB153DE07	—	INVERTER UNIT	—
DUNTKB155DE07	—	R/C, LED Unit	—
DUNTKB156DE07	—	OPERATION Unit	—

#### LC-15E1E

DUNTKB148FE11	—	MAIN Unit	—
DUNTKB152DE08	—	TUNER Unit	—
DUNTKB153DE08	—	INVERTER UNIT	—
DUNTKB155DE08	—	R/C, LED Unit	—
DUNTKB156DE08	—	OPERATION Unit	—

## LCD PANEL

**NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.**

RLCDA012WJZZ	J	13" LCD Panel Unit	CV
RLCDA013WJZZ	J	15" LCD Panel Unit	DB

Ref. No.	Part No.	★	Description	Code
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### DUNTKB148FE10 (LC-13E1E) DUNTKB148FE11 (LC-15E1E) MAIN UNIT

#### INTEGRATED CIRCUITS

IC401	VHiBA7046F/-1Y	J	BA7046F	AF
IC402	VHiNJM2235M-1Y	J	NJM2235M	AE
IC751	VHiAN77L05M-1Y	J	AN77L05M-E1	AG
IC752	VHiBA033FP/-1Y	J	BA033FP-E2	AG
IC801	VHiVPC3230D1EQ	J	VPC3230D-QA-B3	BD
IC1101	VHiMB8346BV-1Y	J	MB88346BPFV	AN
IC1102	VHiNJM4565V-1Y	J	NJM4565V	AF
IC1103	VHiNJM2060V-1Y	J	NJM2060V	AF
IC1104	VHiNJM2060V-1Y	J	NJM2060V	AF
IC1105	VHiBU4053V/-1Y	J	BU4053BCFV-E2	AE
IC1106	VHiNJM4580V-1Y	J	NJM4580V	AE
IC1107	VHiNJM4580V-1Y	J	NJM4580V	AE
IC1108	VHiNJM4580V-1Y	J	NJM4580V	AE
IC1109	VHiNJM353M/-1Y	J	NJM353M	AG
IC1110	VHiBU4053V/-1Y	J	BU4053BCFV-E2	AE
IC1111	VHiMB8346BV-1Y	J	MB88346BPFV	AN
IC1112	VHiBU4053V/-1Y	J	BU4053BCFV-E2	AE
IC1113	VHiBU4053V/-1Y	J	BU4053BCFV-E2	AE
IC1114	VHiNJM4580V-1Y	J	NJM4580V	AE
IC1115	VHiNJM4580V-1Y	J	NJM4580V	AE
IC1116	VHiNJM2147M-1Y	J	NJM2147M-TE1	AF
IC1201	RH-iX3378CEN1Q	J	LR38815	AY
IC1202	VHiPD485505-2Y	J	UPD485505G-25	AY
IC1203	RH-iX1518CEZZY	J	TC74HC157AF	AG
IC1206	VHiLVX125FT-1Y	J	TC74LVX125FT	AG
IC1207	VHiTC4W66U/-1Y	J	TC4W66FU	AE
IC1208	VHiPQ1R34+-1Y	J	PQ1R34	AE
IC2001	RH-iXA299WJZZQ	J	M306V0ME-174FP	AZ
IC2002	VHiPST529DM-1Y	J	PST529DMT	AE
IC2004	VHiBR2416E2-1Y	J	BR24C16F	AK
IC2030	VHiM95640MN-1Y	J	M95640-WMN6T	AK
IC2031	VHiSNT1G32C-1Y	J	SN74AHCT1G32DC	AD
IC2032	VHiTC4W66F/-1Y	J	TC4W66F	AE
IC3701	VHiNJM2377M-1Y	J	NJM2377M	AK
IC3702	VHiNJM2147M-1Y	J	NJM2147M-TE1	AF

#### TRANSISTORS

Q401	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q420	VS2SA1530AR-1Y	J	2SA1530AR	AB
Q421	VS2SA1530AR-1Y	J	2SA1530AR	AB
Q751	VS2SA1530AR-1Y	J	2SA1530AR	AB
Q752	VSDTC144EE/-1Y	J	DTC144EE	AA
Q753	VS2SA1530AR-1Y	J	2SA1530AR	AB
Q820	VS2SA1530AR-1Y	J	2SA1530AR	AB
Q1101	VS2SA1729/-1Y	J	2SA1729	AF
Q1102	VS2SC4520/-1Y	J	2SC4520	AE
Q1103	VS2SA1036K/-1Y	J	2SA1036K	AC
Q1104	VS2SA1036K/-1Y	J	2SA1036K	AC
Q1105	VS2SA1036K/-1Y	J	2SA1036K	AC
Q1106	VSFMMT718/-1Y	J	FMMT718//	AE
Q1107	VSDTC144EE/-1Y	J	DTC144EE	AA
Q1108	VS2SC4520/-1Y	J	2SC4520	AE
Q1109	VS2SA1729/-1Y	J	2SA1729	AF
Q1201	VSDTC144EE/-1Y	J	DTC144EE	AA
Q1203	VSDTC144EE/-1Y	J	DTC144EE	AA
Q1204	VS2SA1037KQ-1Y	J	2SA1037KQ	AA
Q1205	VSUMX2N++++-1Y	J	UMX2N++++	AB
Q2004	VSDTC144EE/-1Y	J	DTC144EE	AA
Q2005	VSDTA144EE/-1Y	J	DTA144EE	AA
Q2006	VSDTC144EE/-1Y	J	DTC144EE	AA
Q3700	VSFMMT718/-1Y	J	FMMT718//	AE
Q3701	VSDTC144EE/-1Y	J	DTC144EE	AA
Q3702	VS2SK2503/-1Y	J	2SK2503	AE
Q3703	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3704	VSFMMT619/-1Y	J	FMMT619//	AE
Q3706	VSFMY3////-1Y	J	FMY3////	AB
Q3707	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3709	VSFMMT718/-1Y	J	FMMT718//	AE
Q3710	VSDTC144EE/-1Y	J	DTC144EE	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>DUNTKB148FE10 (LC-13E1E)</b>									
<b>DUNTKB148FE11 (LC-15E1E)</b>									
<b>MAIN UNIT (Continued)</b>									
<b>DIODES</b>									
D1101	VHD1SS250//1EY	J	Diode	AB	C806	RC-KZ1025CEZZY	J 1	10V Ceramic	AB
D1106	VHDDAN222//1Y	J	Diode	AA	C809	VCEAPK1CN107MY	J 100	16V Electrolytic	AD
D1107	VHD1SS250//1EY	J	Diode	AB	C810	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
D1108	VHDDAN222//1Y	J	Diode	AA	C812	RC-KZ1025CEZZY	J 1	10V Ceramic	AB
D1109	VHDDAN222//1Y	J	Diode	AA	C813	RC-KZ1025CEZZY	J 1	10V Ceramic	AB
D1110	VHDDAN222//1Y	J	Diode	AA	C814	VCKYCY1HB102KY	J 1000p	50V Ceramic	AA
D1201	VHD1SS250//1EY	J	Diode	AB	C815	VCKYTV1CF684ZY	J 0.68	16V Ceramic	AB
D1203	VHDBR491D+-1Y	J	Diode	AD	C816	VCKYTV1CF684ZY	J 0.68	16V Ceramic	AB
D1205	VHDDAN222//1Y	J	Diode	AA	C817	VCKYTV1CF684ZY	J 0.68	16V Ceramic	AB
D1206	RH-EX0227CEZZY	J	Zener Diode	AB	C818	RC-KZ1025CEZZY	J 1	10V Ceramic	AB
D1208	VHDDAN222//1Y	J	Diode	AA	C819	RC-KZ1025CEZZY	J 1	10V Ceramic	AB
D1209	RH-EX1247CEZZY	J	Zener Diode	AB	C820	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
D1210	VHDDAN222//1Y	J	Diode	AA	C821	VCEASH1CN477MY	J 470	16V Electrolytic	AD
D1211	VHDDAN222//1Y	J	Diode	AA	C822	RC-KZ1025CEZZY	J 1	10V Ceramic	AB
D1212	VHDBR481K+-1Y	J	Diode	AD	C823	RC-KZ1025CEZZY	J 1	10V Ceramic	AB
D2001	VHDDAN222//1Y	J	Diode	AA	C826	VCEAPF0GW107MY	J 100	4V Electrolytic	AC
D2002	RH-EX0849CEZZY	J	Zener Diode	AC	C827	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
D3700	VHDDAN222//1Y	J	Diode	AA	C830	VCKYCY1CF224ZY	J 0.22	16V Ceramic	AB
D3701	VHDDAN222//1Y	J	Diode	AA	C831	VCKYCY1CF224ZY	J 0.22	16V Ceramic	AB
D3703	VHDSFPB56//2EY	J	Diode	AC	C832	VCKYCY1CF224ZY	J 0.22	16V Ceramic	AB
D3704	VHD1SS250//1EY	J	Diode	AB	C833	VCEAPF0GW107MY	J 100	4V Electrolytic	AC
D3705	VHD1SS250//1EY	J	Diode	AB	C834	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
D3706	VHDSFPB74//2EY	J	Diode	AD	C835	VCEAPF0JW107MY	J 100	6.3V Electrolytic	AC
D3707	VHDSFPB74//2EY	J	Diode	AD	C836	RC-KZ1025CEZZY	J 1	10V Ceramic	AB
D3708	VHDDAN222//1Y	J	Diode	AA	C837	RC-KZ1025CEZZY	J 1	10V Ceramic	AB
D3709	VHDDAN222//1Y	J	Diode	AA	C838	VCEAPF0GW107MY	J 100	4V Electrolytic	AC
D3711	VHDDAN222//1Y	J	Diode	AA	C839	RC-KZ1025CEZZY	J 1	10V Ceramic	AB
<b>PACKAGED CIRCUITS</b>					C840	VCKYTV1CF684ZY	J 0.68	16V Ceramic	AB
X801	RCRSC0012CEZZY	J	Crystal	AH	C842	VCKYCY1CF104ZY	J 0.1	16V Ceramic	AA
X2002	RFILZ0169TAZZY	J	Filter	AD	C843	VCCCCY1HH180JY	J 18p	50V Ceramic	AA
<b>FILTERS AND COILS</b>					C844	VCCCCY1HH180JY	J 18p	50V Ceramic	AA
FL401	RFILCA002WJZZY	J	Filter	AG	C845	VCCCCY1HH180JY	J 18p	50V Ceramic	AA
FL801	RFILCA002WJZZY	J	Filter	AG	C846	VCCCCY1HH180JY	J 18p	50V Ceramic	AA
L804	RCILC0055CEZZY	J	Coil	AD	C847	VCCCCY1HH180JY	J 18p	50V Ceramic	AA
L805	RCILC0055CEZZY	J	Coil	AD	C848	VCCCCY1HH101JY	J 100p	50V Ceramic	AA
L1201	VP-1M470J5R4NY	J	Peaking 47μH	AC	C850	VCCCCY1HH180JY	J 18p	50V Ceramic	AA
L1202	RCILC0055CEZZY	J	Coil	AD	C1101	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
L1203	VP-1M220J2R9NY	J	Peaking 22μH	AB	C1102	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
L1204	VP-1M220J2R9NY	J	Peaking 22μH	AB	C1103	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
L1205	VP-1M220J2R9NY	J	Peaking 22μH	AB	C1104	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
L3700	RCILC0130CEZZY	J	Coil	AG	C1105	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
L3702	RCILC0130CEZZY	J	Coil	AG	C1107	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
<b>TRANSFORMER</b>					C1108	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
△ T3701	RTRNW0010CEZZY	J	Transformer	AL	C1109	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
<b>CAPACITORS</b>					C1110	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C401	VCKYTV1AB105KY	J 1	10V Ceramic	AC	C1111	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C402	VCKYCY1HB102KY	J 1000p	50V Ceramic	AA	C1112	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C403	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	C1113	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C404	VCEAPF1AW476MY	J 47	10V Electrolytic	AB	C1114	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C405	VCKYCY1HB222KY	J 2200p	50V Ceramic	AA	C1115	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C406	VCKYTV1AB105KY	J 1	10V Ceramic	AC	C1116	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C407	VCCCCY1HH101JY	J 100p	50V Ceramic	AA	C1117	VCCCCY1HH560JY	J 56p	50V Ceramic	AB
C408	VCKYTV1AB105KY	J 1	10V Ceramic	AC	C1118	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C409	VCKYTV1AB105KY	J 1	10V Ceramic	AC	C1119	VCKYTV1CF105ZY	J 1	16V Ceramic	AB
C410	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	C1120	VCKYTV1EF104ZY	J 0.1	25V Ceramic	AB
C414	VCCCCY1HH151JY	J 150p	50V Ceramic	AA	C1122	VCKYTV1CF105ZY	J 1	16V Ceramic	AB
C751	VCKYTV1CF105ZY	J 1	16V Ceramic	AB	C1123	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C752	VCEAPF1CN226MY	J 22	16V Electrolytic	AD	C1124	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C753	VCKYTV1CF105ZY	J 1	16V Ceramic	AB	C1125	VCEAPF1CN107MY	J 100	16V Electrolytic	AD
C755	VCKYCY1CF334ZY	J 0.33	16V Ceramic	AB	C1126	RC-EZ1339CEZZY	J 220	16V Electrolytic	AD
C756	VCEAPF0JN226MY	J 22	6.3V Electrolytic	AD	C1129	RC-EZ1339CEZZY	J 220	16V Electrolytic	AD
C801	VCEAPF1CN106MY	J 10	16V Electrolytic	AD	C1130	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C802	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	C1131	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C803	VCCCCY1HH7R0DY	J 7p	50V Ceramic	AA	C1132	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C804	VCCCCY1HH7R0DY	J 7p	50V Ceramic	AA	C1133	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C805	RC-KZ1025CEZZY	J 1	10V Ceramic	AB	C1134	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
					C1135	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
					C1136	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
					C1137	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
					C1138	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
					C1139	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
					C1141	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
					C1142	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
					C1143	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
					C1144	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA



Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>DUNTKB148FE10 (LC-13E1E)</b>					C3717	VCKYTV1CF105ZY	J 1	16V Ceramic	AB
<b>DUNTKB148FE11 (LC-15E1E)</b>					C3718	VCEASH1CN337MY	J 330	16V Electrolytic	AE
<b>MAIN UNIT (Continued)</b>					C3719	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1145	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	C3720	VCCCCY1HH181JY	J 180p	50V Ceramic	AA
C1146	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	C3721	VCKYTV1CF105ZY	J 1	16V Ceramic	AB
C1147	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	C3722	VCAAPF0JJ157MY	J 150	6.3V Electrolytic	AG
C1148	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	C3724	VCEASH1CN337MY	J 330	16V Electrolytic	AE
C1149	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	C3725	VCKYTV1CF105ZY	J 1	16V Ceramic	AB
C1150	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	C3727	VCEASH0JN477MY	J 470	6.3V Electrolytic	AD
C1151	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	C3728	VCKYTV1CF105ZY	J 1	16V Ceramic	AB
C1152	VCCCCY1HH181JY	J 180p	50V Ceramic	AA	C3730	VCKYTV1HF104ZY	J 0.1	50V Ceramic	AB
C1153	VCKYTV1HB103KY	J 0.01	50V Ceramic	AA	C3732	RC-KZ1025CEZZY	J 1	10V Ceramic	AB
C1154	VCKYTV1HB103KY	J 0.01	50V Ceramic	AA	C3733	RC-KZ1025CEZZY	J 1	10V Ceramic	AB
C1155	VCKYTV1CB334KY	J 0.33	16V Ceramic	AC	C3734	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1156	VCCCCY1HH560JY	J 56p	50V Ceramic	AB	C3735	VCKYCY1HF103ZY	J 0.01	50V Ceramic	AA
C1157	VCKYTV1CB105KY	J 1	16V Ceramic	AC	C3740	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1204	VCCCCY1HH220JY	J 22p	50V Ceramic	AA	C3741	VCEAPF1HN225MY	J 2.2	50V Electrolytic	AD
C1205	VCCCCY1HH220JY	J 22p	50V Ceramic	AA	<b>RESISTORS</b>				
C1206	VCEAPF1HN106MY	J 10	50V Electrolytic	AD	R401	VRS-CY1JF104JY	J 100k	1/16W Metal Oxide	AA
C1207	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R402	VRS-CY1JF333JY	J 33k	1/16W Metal Oxide	AA
C1208	VCKYTV1HF104ZY	J 0.1	50V Ceramic	AB	R403	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
C1209	VCEASH0JN227MY	J 220	6.3V Electrolytic	AC	R404	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C1210	VCEAPF0GW107MY	J 100	4V Electrolytic	AC	R405	VRS-CY1JF681JY	J 680	1/16W Metal Oxide	AA
C1211	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R406	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
C1212	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R408	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
C1213	VCEAPF1CW107MY	J 100	16V Electrolytic	AC	R409	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
C1214	VCEAPF0GW107MY	J 100	4V Electrolytic	AC	R410	VRS-CY1JF474JY	J 470k	1/16W Metal Oxide	AA
C1215	RC-KZ1025CEZZY	J 1	10V Ceramic	AB	R414	VRS-CY1JF105JY	J 1M	1/16W Metal Oxide	AA
C1217	VCEAPF1HN475MY	J 4.7	50V Electrolytic	AC	R415	VRS-CY1JF105JY	J 1M	1/16W Metal Oxide	AA
C1218	VCEAPF1CN106MY	J 10	16V Electrolytic	AD	R416	VRS-CY1JF105JY	J 1M	1/16W Metal Oxide	AA
C1219	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R417	VRS-CY1JF331JY	J 330	1/16W Metal Oxide	AA
C1223	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R418	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C1224	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R419	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C1225	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R420	VRS-CY1JF152JY	J 1.5k	1/16W Metal Oxide	AA
C1226	VCEAPF1HN106MY	J 10	50V Electrolytic	AD	R421	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA
C1227	VCKYTV1CB105KY	J 1	16V Ceramic	AC	R422	VRS-CY1JF471JY	J 470	1/16W Metal Oxide	AA
C1228	RC-KZ1025CEZZY	J 1	10V Ceramic	AB	R424	VRS-CY1JF331JY	J 330	1/16W Metal Oxide	AA
C1229	VCEAPF1CN226MY	J 22	16V Electrolytic	AD	R427	VRS-CY1JF561JY	J 560	1/16W Metal Oxide	AA
C1230	VCKYTV1CB105KY	J 1	16V Ceramic	AC	R428	VRS-CY1JF561JY	J 560	1/16W Metal Oxide	AA
C1231	VCEAPF1CN107MY	J 100	16V Electrolytic	AD	R430	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
C1232	VCKYTV1HF104ZY	J 0.1	50V Ceramic	AB	R726	VRS-CY1JF1R0JY	J 1	1/16W Metal Oxide	AA
C1240	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R751	VRS-CY1JF1R0JY	J 1	1/16W Metal Oxide	AA
C1241	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R752	VRS-CY1JF154JY	J 150k	1/16W Metal Oxide	AA
C1242	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R753	VRS-CY1JF274JY	J 270k	1/16W Metal Oxide	AA
C1243	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R775	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
C1266	VCCCCY1HH221JY	J 220p	50V Ceramic	AA	R777	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
C1267	VCCCCY1HH221JY	J 220p	50V Ceramic	AA	R789	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
C1268	VCCCCY1HH221JY	J 220p	50V Ceramic	AA	R790	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
C2001	VCKYCY1HB102KY	J 1000p	50V Ceramic	AA	R801	VRS-CB1JF221JY	J 220	1/16W Metal Oxide	AC
C2002	VCCCCY1HH221JY	J 220p	50V Ceramic	AA	R802	VRS-CB1JF220JY	J 22	1/16W Metal Oxide	AC
C2003	VCEAPF1HW105MY	J 1	50V Electrolytic	AB	R803	VRS-CB1JF220JY	J 22	1/16W Metal Oxide	AC
C2006	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R804	VRS-CA1JF101JY	J 100	1/16W Metal Oxide	AA
C2007	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R805	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C2009	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R810	VRS-CB1JF220JY	J 22	1/16W Metal Oxide	AC
C2010	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R811	VRS-CY1JF222JY	J 2.2k	1/16W Metal Oxide	AA
C2011	VCCCCY1HH220JY	J 22p	50V Ceramic	AA	R812	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
C2016	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R813	VRS-CB1JF220JY	J 22	1/16W Metal Oxide	AC
C2017	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R814	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA
C2030	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R815	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
C2031	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R816	VRS-CY1JF470JY	J 47	1/16W Metal Oxide	AA
C2100	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R817	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA
C3700	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R818	VRS-CY1JF331JY	J 330	1/16W Metal Oxide	AA
C3701	VCEAPF1EW475MY	J 4.7	25V Electrolytic	AB	R819	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
C3702	RC-KZ1025CEZZY	J 1	10V Ceramic	AB	R820	VRS-CA1JF101JY	J 100	1/16W Metal Oxide	AA
C3703	VCEAPT1CN226MY	J 22	16V Electrolytic	AC	R821	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C3704	VCCCCY1HH471JY	J 470p	50V Ceramic	AA	R822	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C3705	VCKYCY1EB103KY	J 0.01	25V Ceramic	AA	R826	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C3709	VCKYTV1CF105ZY	J 1	16V Ceramic	AB	R830	VRS-CY1JF561JY	J 560	1/16W Metal Oxide	AA
C3711	VCKYCY1HB562KY	J 5600p	50V Ceramic	AA	R832	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
C3712	VCAAPF1CJ826MY	J 82	16V Electrolytic	AG	R836	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
C3713	VCKYCY1HB562KY	J 5600p	50V Ceramic	AA	R838	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
C3714	VCEASH1HN476MY	J 47	50V Electrolytic	AD	R840	VRS-CY1JF221JY	J 220	1/16W Metal Oxide	AA
C3715	VCKYTV1HF104ZY	J 0.1	50V Ceramic	AB	R851	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
C3716	VCEASH1EN227MY	J 220	25V Electrolytic	AE	R852	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA

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<b>DUNTKB148FE10 (LC-13E1E)</b>									
<b>DUNTKB148FE11 (LC-15E1E)</b>									
<b>MAIN UNIT (Continued)</b>									
R853	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1158	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA
R854	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1160	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA
R1001	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	R1161	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA
R1002	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA	R1162	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA
R1003	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA	R1163	VRS-CY1JF123FY	J 12k	1/16W Metal Oxide	AA
R1005	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA	R1164	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1006	VRS-CY1JF243FY	J 24k	1/16W Metal Oxide	AA	R1166	VRS-CY1JF104FY	J 100k	1/16W Metal Oxide	AA
R1007	VRS-CY1JF563FY	J 56k	1/16W Metal Oxide	AA	R1167	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA
R1008	VRS-CY1JF822FY	J 8.2k	1/16W Metal Oxide	AA	R1168	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA
R1009	VRS-CY1JF682FY	J 6.8k	1/16W Metal Oxide	AA	R1169	VRS-CF1JP333JY	J 33k	1/16W Metal Oxide	AC
R1013	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	R1170	VRS-CY1JF683FY	J 68k	1/16W Metal Oxide	AA
R1014	VRS-CY1JF333JY	J 10k	1/16W Metal Oxide	AA	R1171	VRS-CY1JF123FY	J 12k	1/16W Metal Oxide	AA
R1016	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA	R1172	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA
R1017	VRS-CY1JF272JY	J 2.7k	1/16W Metal Oxide	AA	R1173	VRS-CY1JF333JY	J 33k	1/16W Metal Oxide	AA
R1019	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA	R1174	VRS-CY1JF683FY	J 68k	1/16W Metal Oxide	AA
R1020	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA	R1175	VRS-CY1JF123FY	J 12k	1/16W Metal Oxide	AA
R1021	VRS-TW2ED102JY	J 1k	1/4W Metal Oxide	AA	R1176	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA
R1022	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1177	VRS-CY1JF683FY	J 68k	1/16W Metal Oxide	AA
R1024	VRS-CY1JF123FY	J 12k	1/16W Metal Oxide	AA	R1178	VRS-CY1JF123FY	J 12k	1/16W Metal Oxide	AA
R1025	VRS-CY1JF123FY	J 12k	1/16W Metal Oxide	AA	R1179	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA
R1026	VRS-CY1JF123FY	J 12k	1/16W Metal Oxide	AA	R1182	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R1027	VRS-CY1JF123FY	J 12k	1/16W Metal Oxide	AA	R1183	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R1028	VRS-CY1JF123FY	J 12k	1/16W Metal Oxide	AA	R1184	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R1029	VRS-CY1JF123FY	J 12k	1/16W Metal Oxide	AA	R1185	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R1030	VRS-TW2ED150JY	J 15	1/4W Metal Oxide	AA	R1186	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R1031	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1187	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R1032	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1188	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R1033	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1189	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1034	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1190	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1102	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA	R1193	VRS-CY1JF680JY	J 68	1/16W Metal Oxide	AA
R1104	VRS-CA1JF333JY	J 33k	1/16W Metal Oxide	AA	R1194	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1106	VRS-CF1JP333JY	J 33k	1/16W Metal Oxide	AC	R1195	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1107	VRS-CY1JF123FY	J 12k	1/16W Metal Oxide	AA	R1196	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1108	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA	R1198	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1109	VRS-CY1JF333JY	J 33k	1/16W Metal Oxide	AA	R1199	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1110	VRS-CY1JF104FY	J 100k	1/16W Metal Oxide	AA	R1201	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1111	VRS-CY1JF683FY	J 68k	1/16W Metal Oxide	AA	R1202	VRS-CF1JP220JY	J 22	1/16W Metal Oxide	AC
R1112	VRS-CY1JF123FY	J 12k	1/16W Metal Oxide	AA	R1203	VRS-CF1JP220JY	J 22	1/16W Metal Oxide	AC
R1114	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA	R1204	VRS-CF1JP220JY	J 22	1/16W Metal Oxide	AC
R1115	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	R1208	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R1116	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	R1209	VRS-CA1JF220JY	J 22	1/16W Metal Oxide	AA
R1117	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	R1210	VRS-CY1JF220JY	J 22	1/16W Metal Oxide	AA
R1118	VRS-CY1JF563FY	J 56k	1/16W Metal Oxide	AA	R1211	VRS-CY1JF221JY	J 220	1/16W Metal Oxide	AA
R1119	VRS-CY1JF472FY	J 4.7k	1/16W Metal Oxide	AA	R1212	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1120	VRS-TX2HF5R6JY	J 5.6	1/2W Metal Oxide	AB	R1214	VRS-CB1JF101JY	J 100	1/16W Metal Oxide	AA
R1121	VRS-CY1JF181JY	J 180	1/16W Metal Oxide	AA	R1217	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R1123	VRS-CY1JF181JY	J 180	1/16W Metal Oxide	AA	R1218	VRS-CA1JF101JY	J 100	1/16W Metal Oxide	AA
R1124	VRS-CY1JF472FY	J 4.7k	1/16W Metal Oxide	AA	R1221	VRS-CB1JF332JY	J 3.3k	1/16W Metal Oxide	AC
R1125	VRS-TX2HF101JY	J 100	1/2W Metal Oxide	AA	R1222	VRS-CB1JF000JY	J 0	1/16W Metal Oxide	AC
R1126	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1223	VRS-CA1JF101JY	J 100	1/16W Metal Oxide	AA
R1127	VRS-TX2HF1R8JY	J 1.8	1/2W Metal Oxide	AB	R1225	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA
R1128	VRS-CY1JF105JY	J 1M	1/16W Metal Oxide	AA	R1226	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R1129	VRS-CY1JF363FY	J 36k	1/16W Metal Oxide	AA	R1228	VRS-TX2HF330JY	J 33	1/2W Metal Oxide	AB
R1130	VRS-TX2HF5R6JY	J 5.6	1/2W Metal Oxide	AB	R1230	VRS-TV1JD562JY	J 5.6k	1/16W Metal Oxide	AA
R1131	VRS-CY1JF105JY	J 1M	1/16W Metal Oxide	AA	R1231	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1132	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1232	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R1133	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1233	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R1140	VRS-CY1JF273FY	J 27k	1/16W Metal Oxide	AA	R1237	VRS-TX2HF472JY	J 4.7k	1/2W Metal Oxide	AB
R1142	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA	R1238	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R1143	VRS-CY1JF391JY	J 390	1/16W Metal Oxide	AA	R1240	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1144	VRS-CY1JF391JY	J 390	1/16W Metal Oxide	AA	R1243	VRS-CY1JF1R0JY	J 1	1/16W Metal Oxide	AA
R1145	VRS-TW2ED5R6JY	J 5.6	1/4W Metal Oxide	AA	R1245	VRS-CY1JF272JY	J 2.7k	1/16W Metal Oxide	AA
R1146	VRS-TW2ED8R2JY	J 8.2	1/4W Metal Oxide	AA	R1246	VRS-CY1JF272JY	J 2.7k	1/16W Metal Oxide	AA
R1147	VRS-TX2HF000JY	J 0	1/2W Metal Oxide	AB	R1247	VRS-CY1JF682JY	J 6.8k	1/16W Metal Oxide	AA
R1148	VRS-TX2HF100JY	J 10	1/2W Metal Oxide	AB	R1248	VRS-CY1JF562JY	J 5.6k	1/16W Metal Oxide	AA
R1150	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA	R1249	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R1151	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA	R1250	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1152	VRS-CY1JF391JY	J 390	1/16W Metal Oxide	AA	R1251	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1153	VRS-CY1JF680JY	J 68	1/16W Metal Oxide	AA	R1252	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1154	VRS-CY1JF683FY	J 68k	1/16W Metal Oxide	AA	R1260	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1157	VRS-CY1JF683FY	J 68k	1/16W Metal Oxide	AA	R1261	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
					R2001	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
					R2002	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
					R2003	VRS-CA1JF223JY	J 22k	1/16W Metal Oxide	AA
					R2004	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>DUNTKB148FE10 (LC-13E1E)</b>									
<b>DUNTKB148FE11 (LC-15E1E)</b>									
<b>MAIN UNIT (Continued)</b>									
R2006	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R3736	VRS-CY1JF223FY	J 22k	1/16W Metal Oxide	AA
R2007	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA	R3737	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R2008	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	R3738	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA
R2009	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	R3739	VRS-CY1JF622FY	J 6.2k	1/16W Metal Oxide	AA
R2010	VRS-CA1JF101JY	J 100	1/16W Metal Oxide	AA	R3740	VRS-CY1JF473FY	J 47k	1/16W Metal Oxide	AA
R2011	VRS-CB1JF101JY	J 100	1/16W Metal Oxide	AA	R3741	VRS-CY1JF113FY	J 11k	1/16W Metal Oxide	AA
R2012	VRS-CA1JF101JY	J 100	1/16W Metal Oxide	AA	R3742	VRS-CY1JF182FY	J 1.8k	1/16W Metal Oxide	AA
R2013	VRS-CA1JF223JY	J 22k	1/16W Metal Oxide	AA	R3743	VRS-CY1JF122FY	J 1.2k	1/16W Metal Oxide	AA
R2014	VRS-CA1JF101JY	J 100	1/16W Metal Oxide	AA	R3745	VRS-CY1JF682FY	J 6.8k	1/16W Metal Oxide	AA
R2015	VRS-CB1JF100JY	J 10	1/16W Metal Oxide	AA	R3746	VRS-CY1JF122FY	J 1.2k	1/16W Metal Oxide	AA
R2017	VRS-CA1JF102JY	J 1k	1/16W Metal Oxide	AA	R3749	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R2018	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	R3750	VRS-CY1JF391JY	J 390	1/16W Metal Oxide	AA
R2019	VRS-CY1JF471JY	J 470	1/16W Metal Oxide	AA	R3751	VRS-TV1JD103JY	J 10k	1/10W Metal Oxide	AA
R2020	VRS-CY1JF105JY	J 1M	1/16W Metal Oxide	AA	R3752	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R2021	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	R3759	VRS-TW2ED102JY	J 1k	1/4W Metal Oxide	AA
R2022	VRS-CB1JF101JY	J 100	1/16W Metal Oxide	AA	R3762	VRS-TW2ED561JY	J 560	1/4W Metal Oxide	AA
R2025	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	R3766	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA
R2026	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	R7003	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R2027	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA	R7018	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R2028	VRS-CB1JF101JY	J 100	1/16W Metal Oxide	AA	R7020	VRS-CB1JF000JY	J 0	1/16W Metal Oxide	AC
R2029	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA	R7021	VRS-CB1JF000JY	J 0	1/16W Metal Oxide	AC
R2030	VRS-CA1JF333JY	J 33k	1/16W Metal Oxide	AA	R7022	VRS-CB1JF000JY	J 0	1/16W Metal Oxide	AC
R2031	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R7023	VRS-CB1JF000JY	J 0	1/16W Metal Oxide	AC
R2032	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R7024	VRS-CA1JF000JY	J 0	1/16W Metal Oxide	AB
R2033	VRS-CB1JF101JY	J 100	1/16W Metal Oxide	AA	<b>MISCELLANEOUS PARTS</b>				
R2035	VRS-CY1JF393JY	J 39k	1/16W Metal Oxide	AA	FB801	RBLN-0090CEZZY	J	Ferrite Bead	AD
R2036	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	FB802	RBLN-0090CEZZY	J	Ferrite Bead	AD
R2037	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	FB1201	RBLN-0090CEZZY	J	Ferrite Bead	AD
R2038	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA	FB1202	RBLN-0006TAZZY	J	Ferrite Bead	AB
R2039	VRS-CA1JF103JY	J 10k	1/16W Metal Oxide	AA	FB1203	RBLN-0076TAZZY	J	Ferrite Bead	AC
R2041	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	FB3700	RBLN-0095CEZZY	J	Ferrite Bead	AD
R2042	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	FB3701	RBLN-0095CEZZY	J	Ferrite Bead	AD
R2043	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA	FB3704	RBLN-0051TAZZY	J	Ferrite Bead	AC
R2044	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA	FB3705	RBLN-0051TAZZY	J	Ferrite Bead	AC
R2052	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA	FB3706	RBLN-0254TAZZY	J	Ferrite Bead	AB
R2064	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA	FB3707	RBLN-0254TAZZY	J	Ferrite Bead	AB
R2068	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	FB3708	RBLN-0051TAZZY	J	Ferrite Bead	AC
R2072	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	FB3709	RBLN-0095CEZZY	J	Ferrite Bead	AD
R2078	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA	P2002	QPLGN1320REZZ	J	Plug, 13-pin(MC)	AC
R3700	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA	P2003	QPLGN1258REZZY	J	Plug, 12-pin(MS)	AE
R3701	VRS-TW2ED1R0JY	J 1	1/4W Metal Oxide	AB	P3702	QPLGN1178GEZZ	J	Plug, 11-pin(MB)	AC
R3702	VRS-TW2ED102JY	J 1k	1/4W Metal Oxide	AA	SC1201	QSOCNA002WJPZY	J	Socket, 20-pin(LK)	AD
R3703	VRS-CY1JF274JY	J 270k	1/16W Metal Oxide	AA	SC1202	QSOCN0687FJZZY	J	Socket, 50-pin(LS)	AF
R3704	VRS-CY1JF133FY	J 13k	1/16W Metal Oxide	AA	SC1203	QSOCN0206FJZZY	J	Socket, 30-pin(LG)	AF
R3705	VRS-CY1JF184JY	J 180k	1/16W Metal Oxide	AA	SC2001	QSOCN0464FJZZY	J	Socket, 50-pin(MA)	AH
R3706	VRS-CY1JF100JY	J 10	1/16W Metal Oxide	AA	SC2002	QSOCN0487FJZZY	J	Socket, 20-pin(MT)	AE
R3707	VRS-CY1JF105JY	J 1M	1/16W Metal Oxide	AA					
R3708	VRS-CY1JF682JY	J 6.8k	1/16W Metal Oxide	AA					
R3709	VRS-CY1JF272FY	J 2.7k	1/16W Metal Oxide	AA					
R3710	VRS-CY1JF123FY	J 12k	1/16W Metal Oxide	AA					
R3711	VRS-CY1JF152FY	J 1.5k	1/16W Metal Oxide	AA					
R3712	VRS-CY1JF683FY	J 68k	1/16W Metal Oxide	AA					
R3713	VRS-CY1JF563FY	J 56k	1/16W Metal Oxide	AA					
R3714	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA					
R3715	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA					
R3716	VRS-TX2HF000JY	J 0	1/2W Metal Oxide	AB					
R3718	VRS-CE3AF821JY	J 820	1W Metal Oxide	AC					
R3721	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA					
R3722	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA					
R3724	VRS-CY1JF1R0JY	J 1	1/16W Metal Oxide	AA					
R3725	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA					
R3726	VRS-TQ2BD683JY	J 68k	1/8W Metal Oxide	AA					
R3727	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA					
R3728	VRS-CY1JF393JY	J 39k	1/16W Metal Oxide	AA					
R3729	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA					
R3730	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA					
R3731	VRS-CY1JF222JY	J 2.2k	1/16W Metal Oxide	AA					
R3732	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA					
R3733	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA					
R3734	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA					
R3735	VRS-CY1JF123FY	J 12k	1/16W Metal Oxide	AA					



Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>DUNTKB152DE07 (LC-13E1E)</b>									
<b>DUNTKB152DE08 (LC-15E1E)</b>									
<b>TUNER UNIT</b>									
<b>TUNER</b>									
<b>NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.</b>									
TU1	VTUVT4T5FD531	J	Tuner	BL					
<b>INTEGRATED CIRCUITS</b>									
IC304	VHIBH3543F+-1Y	J	Bh3543F-E2	AE	D3302	RH-EX1396CEZZY	J	Zener Diode, 6.8V	AB
IC1601	VHISDA5550M-1Q	J	SDA5550M	AZ	D3403	RH-EX1271CEZZY	J	Zener Diode, 12V	AB
IC1602	RH-IXA134WJN2Q	J	MBM29DL400TC	AY	D3404	RH-EX1271CEZZY	J	Zener Diode, 12V	AB
IC1603	VHI62S8308X-1Q	J	A62S8308X-70SI	AY	D3412	RH-EX1271CEZZY	J	Zener Diode, 12V	AB
IC1604	VHIMM1501XN-1Y	J	MM1501XNRE	AE	D3493	RH-EX1271CEZZY	J	Zener Diode, 12V	AB
IC1605	VHI7WH157FK-1Y	J	TC7Wh157FK	AF	D3600	VHDMN10///-1Y	J	Diode	AB
IC1606	VHIBA033FP-1Y	J	BA033FP-E2	AG	D3601	VHDMN10///-1Y	J	Diode	AB
IC1607	VHIPST9121N-1Y	J	IC-PST9121NR	AE	D3604	VHDMN10///-1Y	J	Diode	AB
IC1608	VHILVC157T+-1Y	J	SN74LVC157APWR	AF	D3605	VHDMN10///-1Y	J	Diode	AB
IC1609	VHILVC04AT+-1Y	J	SN74LVC04APWR	AE	D3902	RH-EX1247CEZZY	J	Zener Diode, 5.6V	AB
IC1610	VHIBA05FP+-1Y	J	BA05FP-E2	AF	D3905	VHDDAN222//1Y	J	Diode	AA
IC1611	VHIPST9128N-1Y	J	IC-PST9128NR	AE	D3908	RH-EX1247CEZZY	J	Zener Diode, 5.8V	AB
IC1612	VHITC7SZ08U-1Y	J	TC7SZ08FU	AE	D3911	RH-EX1271CEZZY	J	Zener Diode, 12V	AB
IC1613	VHIBA025FP+-1Y	J	BA25BC0FP-E2	AG	D3912	VHDDAN222//1Y	J	Diode	AA
IC1614	VHITCVHC08T-1Y	J	TC74VHC08FT	AF	D5701	RH-EX1271CEZZY	J	Zener Diode, 12V	AB
IC1615	VHI74LVX86T-1Y	J	TC74LVX86FT	AF	<b>PACKAGED CIRCUITS</b>				
IC1616	VHINC7SZ58P-1Y	J	NC7SZ58P6X	AE	X1601	RCRSB0202GEZZ+	J	Crystal, 6MHz	AG
IC1619	VHITK15420/-1Y	J	TK15420MTL	AG	X1901	RCRSB0250GEZZ+	J	Crystal, 18.432MHz	AG
IC1620	VHITK15420/-1Y	J	TK15420MTL	AG	<b>COILS</b>				
IC1901	RH-IX1853BMZZQ	J	I.C.	BB	L1601	VP-1M270J3R8NY	J	Peaking 27μH	AC
IC1902	VHINJM4560M-1Y	J	NJM4560M	AG	L1901	VP-1M4R7J1R2NY	J	Peaking 4.7μH	AB
IC1903	VHINJM4560M-1Y	J	NJM4560M	AG	L1902	VP-1M101J7R7NY	J	Peaking 100μH	AC
IC2200	VHIMM1506XN-1Y	J	MM1506XNRE	AD	L2200	VP-1M4R7J1R2NY	J	Peaking 4.7μH	AB
IC3101	VHIBU4053V/-1Y	J	BU4053BCFV-E2	AE	L2201	VP-1M2R7JR85NY	J	Peaking 2.7μH	AB
IC3305	VHILA4635A+-1S	J	LA4635A	AM	L2202	VP-1M4R7J1R2NY	J	Peaking 4.7μH	AB
IC3500	VHINJM4560M-1Y	J	NJM4560M	AG	L2203	VP-1M3R3JR93NY	J	Peaking 3.3μH	AB
<b>TRANSISTORS</b>					L2204	VP-1M5R6J1R2NY	J	Peaking 5.6μH	AB
Q302	VSDTC144EKA-1Y	J	DTC144EKA	AB	L2205	VP-1M3R3JR93NY	J	Peaking 3.3μH	AB
Q1606	VS2SC3928AR-1Y	J	2SC3928AR	AB	L2206	VP-1M4R7J1R2NY	J	Peaking 4.7μH	AB
Q1607	VS2SA1530AR-1Y	J	2SA1530AR	AB	L2207	VP-1M2R7JR85NY	J	Peaking 2.7μH	AB
Q1608	VSDTC144TE/-1Y	J	DTC144TE	AB	L2208	VP-1M4R7J1R2NY	J	Peaking 4.7μH	AB
Q1612	VS2SA1530AR-1Y	J	2SA1530AR	AB	L2210	VP-1M100J1R6NY	J	Peaking 10μH	AB
Q1631	VS2SC3928AR-1Y	J	2SC3928AR	AB	L3202	RCILC0141CEZZY	J	Coil	AF
Q1632	VS2SC3928AR-1Y	J	2SC3928AR	AB	<b>CAPACITORS</b>				
Q1633	VS2SC3928AR-1Y	J	2SC3928AR	AB	C334	VCKYTV1CF105ZY	J	1 16V Ceramic	AB
Q2200	VS2SC3928AR-1Y	J	2SC3928AR	AB	C335	VCKYCY1HB682KY	J	6800p 50V Ceramic	AA
Q2201	VS2SC3928AR-1Y	J	2SC3928AR	AB	C336	VCKYCY1HB682KY	J	6800p 50V Ceramic	AA
Q2202	VS2SC3928AR-1Y	J	2SC3928AR	AB	C338	VCKYTV1CF105ZY	J	1 16V Ceramic	AB
Q2203	VS2SC3928AR-1Y	J	2SC3928AR	AB	C339	VCEAPF0JW476MY	J	47 6.3V Electrolytic	AB
Q2204	VS2SC3928AR-1Y	J	2SC3928AR	AB	C340	RC-KZ1025CEZZY	J	1 10V Ceramic	AB
Q2205	VS2SC3928AR-1Y	J	2SC3928AR	AB	C341	VCEAPF1CW476MY	J	47 16V Electrolytic	AC
Q3010	VS2SA1530AR-1Y	J	2SA1530AR	AB	C342	VCEAPF1CW476MY	J	47 16V Electrolytic	AC
Q3304	VSDTC314TK/-1Y	J	DTC314TK	AC	C343	VCEAPF1HW225MY	J	2.2 50V Electrolytic	AB
Q3305	VSDTC314TK/-1Y	J	DTC314TK	AC	C344	VCEAPF1CW106MY	J	10 16V Electrolytic	AB
Q3306	VS2SC3928AR-1Y	J	2SC3928AR	AB	C1601	VCEAPF0JW107MY	J	100 6.3V Electrolytic	AC
Q3307	VSDTC314TK/-1Y	J	DTC314TK	AC	C1602	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
Q3308	VSDTA144EE/-1Y	J	DTA144EE	AA	C1603	VCKYCY1HB103KY	J	0.01 50V Ceramic	AA
Q3600	VSUPA606T//1Y	J	UPA606T	AD	C1604	VCKYCY1HB103KY	J	0.01 50V Ceramic	AA
Q3601	VSUPA606T//1Y	J	UPA606T	AD	C1605	VCE9PF0JW226MY	J	22 6.3V Elect. (N.P)	AD
Q3650	VSDTC114YE/-1Y	J	DTC114YE	AB	C1606	VCEAPF1EW106MY	J	10 25V Electrolytic	AC
Q3906	VSDTC314TK/-1Y	J	DTC314TK	AC	C1608	RC-KZ1025CEZZY	J	1 10V Ceramic	AB
Q3907	VSDTC314TK/-1Y	J	DTC314TK	AC	C1609	VCKYCY1CF334ZY	J	0.33 16V Ceramic	AB
Q3908	VSDTC314TK/-1Y	J	DTC314TK	AC	C1610	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
Q3909	VSDTC314TK/-1Y	J	DTC314TK	AC	C1611	VCEAPF0JW476MY	J	47 6.3V Electrolytic	AB
Q3910	VS2SC3928AR-1Y	J	2SC3928AR	AB	C1612	VCEAPF1CW106MY	J	10 16V Electrolytic	AB
Q3911	VS2SA1530AR-1Y	J	2SA1530AR	AB	C1613	VCEAPF1CW226MY	J	22 16V Electrolytic	AB
<b>DIODES</b>					C1614	VCEAPF0JW107MY	J	100 6.3V Electrolytic	AC
D301	VHDMA3120WA-1Y	J	Diode	AD	C1616	VCCCCY1HH181JY	J	180p 50V Ceramic	AA
D302	VHDMA3120WA-1Y	J	Diode	AD	C1617	VCEAPF0JW226MY	J	22 6.3V Electrolytic	AB
D303	VHDDAN222//1Y	J	Diode	AA	C1618	VCEAPF0JW476MY	J	47 6.3V Electrolytic	AB
D2200	RH-EX1264CEZZY	J	Zener Diode, 9V	AB	C1619	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
D2201	RH-EX0906CEZZY	J	Zener Diode, 30V	AD	C1621	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
D3301	VHDDAN222//1Y	J	Diode	AA	C1622	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
					C1623	VCE9PF0JW226MY	J	22 6.3V Elect. (N.P)	AD
					C1624	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
					C1625	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
					C1626	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
					C1627	VCKYTV1CF105ZY	J	1 16V Ceramic	AB
					C1628	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
					C1631	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
					C1633	VCCCCY1HH330JY	J	33p 50V Ceramic	AA
					C1634	VCCCCY1HH330JY	J	33p 50V Ceramic	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code		
<b>DUNTKB152DE07 (LC-13E1E)</b>					<b>DUNTKB152DE08 (LC-15E1E)</b>						
<b>TUNER UNIT (Continued)</b>											
C1635	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C1940	VCKYTV1CF105ZY	J	1	16V Ceramic	AB
C1636	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C1941	VCEAPF1EW475MY	J	4.7	25V Electrolytic	AB
C1637	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C1942	VCEAPF1EW475MY	J	4.7	25V Electrolytic	AB
C1638	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C1943	VCKYCY1HB102KY	J	1000p	50V Ceramic	AA
C1639	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C1944	VCKYCY1HB102KY	J	1000p	50V Ceramic	AA
C1640	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C1945	VCKYCY1HB102KY	J	1000p	50V Ceramic	AA
C1641	VCEAPF0JW226MY	J	22	6.3V Electrolytic	AB	C1946	VCKYCY1HB102KY	J	1000p	50V Ceramic	AA
C1642	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C1947	VCKYTV1CF105ZY	J	1	16V Ceramic	AB
C1644	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C1948	VCKYCY1EB153KY	J	0.015	25V Ceramic	AA
C1645	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA				(LC-15E1E)		
C1646	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C1948	VCKYCY1HB153KY	J	0.015	50V Ceramic	AA
C1647	VCKYCY1CF334ZY	J	0.33	16V Ceramic	AB				(LC-13E1E)		
C1648	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C1960	VCCCCY1HH101JY	J	100p	50V Ceramic	AA
C1649	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C1961	VCCCCY1HH101JY	J	100p	50V Ceramic	AA
C1650	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C2200	VCEASH1CN477MY	J	470	16V Electrolytic	AD
C1653	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C2201	VCKYCY1HB103KY	J	0.01	50V Ceramic	AA
C1655	VCE9PF0JN226MY	J	22	6.3V Elect. (N.P)	AD	C2202	VCCCCY1HH560JY	J	56p	50V Ceramic	AB
C1656	VCE9PF0JN226MY	J	22	6.3V Elect. (N.P)	AD	C2203	VCCCCY1HH560JY	J	56p	50V Ceramic	AB
C1657	VCE9PF0JN226MY	J	22	6.3V Elect. (N.P)	AD	C2204	VCCCCY1HH271JY	J	270p	50V Ceramic	AA
C1658	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C2205	VCCCCY1HH121JY	J	120p	50V Ceramic	AA
C1659	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C2206	VCCCCY1HH820JY	J	82p	50V Ceramic	AA
C1660	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C2207	VCCCCY1HH180JY	J	18p	50V Ceramic	AA
C1661	VCEAPF1CW107MY	J	100	16V Electrolytic	AC	C2208	VCCCCY1HH151JY	J	150p	50V Ceramic	AA
C1662	VCEAPF0JW107MY	J	100	6.3V Electrolytic	AC	C2209	VCCCCY1HH121JY	J	120p	50V Ceramic	AA
C1663	VCEAPF1CW106MY	J	10	16V Electrolytic	AB	C2210	VCKYCY1HB103KY	J	0.01	50V Ceramic	AA
C1664	VCEAPF1CW106MY	J	10	16V Electrolytic	AB	C2211	VCEAPF1CW476MY	J	47	16V Electrolytic	AC
C1665	VCEAPF1CW106MY	J	10	16V Electrolytic	AB	C2212	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA
C1666	VCCCCY1HH221JY	J	220p	50V Ceramic	AA	C2213	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA
C1667	VCCCCY1HH221JY	J	220p	50V Ceramic	AA	C2214	VCEAPF0JW107MY	J	100	6.3V Electrolytic	AC
C1668	VCCCCY1HH221JY	J	220p	50V Ceramic	AA	C2215	VCCCCY1HH101JY	J	100p	50V Ceramic	AA
C1900	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C2216	VCCCCY1HH101JY	J	100p	50V Ceramic	AA
C1901	VCKYCY1HB102KY	J	1000p	50V Ceramic	AA	C2217	VCEASH0JN477MY	J	470	6.3V Electrolytic	AD
C1902	VCKYCY1HB102KY	J	1000p	50V Ceramic	AA	C2218	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA
C1903	VCKYCY1HB562KY	J	5600p	50V Ceramic	AA	C2219	VCKYCY1HF103ZY	J	0.01	50V Ceramic	AA
C1904	VCKYCY1EB153KY	J	0.015	25V Ceramic	AA	C2220	VCKYCY1HB102KY	J	1000p	50V Ceramic	AA
			(LC-15E1E)		C2221	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	
C1904	VCKYCY1HB153KY	J	0.015	50V Ceramic	AA	C2222	VCEAPF1CW106MY	J	10	16V Electrolytic	AB
			(LC-13E1E)		C2223	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	
C1905	VCKYCY1HB682KY	J	6800p	50V Ceramic	AA	C2227	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA
C1906	VCKYCY1HB682KY	J	6800p	50V Ceramic	AA	C2228	VCE9PF1CW106MY	J	10	16V Elect. (N.P)	AC
C1907	VCEAPF1CW106MY	J	10	16V Electrolytic	AB	C2229	VCCCCY1HH331JY	J	330p	50V Ceramic	AA
C1908	VCEAPF1CW106MY	J	10	16V Electrolytic	AB	C3201	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA
C1909	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C3202	RC-EZ1351CEZZ	J	3300	6.3V Electrolytic	AF
C1910	VCEASH1CN157MY	J	150	16V Electrolytic	AC	C3359	VCEAPF1CW106MY	J	10	16V Electrolytic	AB
C1911	VCEAPF1HW335MY	J	3.3	50V Electrolytic	AC	C3360	VCEAPF1CW107MY	J	100	16V Electrolytic	AC
C1912	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C3361	VCEAPF1HW105MY	J	1	50V Electrolytic	AB
C1913	RC-KZ1025CEZZY	J	1	10V Ceramic	AB	C3362	VCKYCY1HB102KY	J	1000p	50V Ceramic	AA
C1914	RC-KZ1025CEZZY	J	1	10V Ceramic	AB	C3363	VCEAPF1HW225MY	J	2.2	50V Electrolytic	AB
C1915	RC-KZ1025CEZZY	J	1	10V Ceramic	AB	C3364	VCEAPF1HW105MY	J	1	50V Electrolytic	AB
C1916	RC-KZ1025CEZZY	J	1	10V Ceramic	AB	C3365	VCKYCY1HB102KY	J	1000p	50V Ceramic	AA
C1917	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C3366	VCEAPF1HW225MY	J	2.2	50V Electrolytic	AB
C1918	VCEAPF1CW106MY	J	10	16V Electrolytic	AB	C3367	VCEAPF1CW106MY	J	10	16V Electrolytic	AB
C1919	RC-KZ1025CEZZY	J	1	10V Ceramic	AB	C3368	VCEAPF1CW106MY	J	10	16V Electrolytic	AB
C1920	VCCCCY1HH560JY	J	56p	50V Ceramic	AB	C3369	RC-EZ1274CEZZ	J	1000	16V Electrolytic	AD
C1921	VCCCCY1HH560JY	J	56p	50V Ceramic	AB	C3370	VCKYTV1CF105ZY	J	1	16V Ceramic	AB
C1922	VCCCCY1HH560JY	J	56p	50V Ceramic	AB	C3372	RC-EZ1274CEZZ	J	1000	16V Electrolytic	AD
C1923	VCCCCY1HH5R0CY	J	5.0p	50V Ceramic	AA	C3375	RC-EZ1274CEZZ	J	1000	16V Electrolytic	AD
C1924	VCCCCY1HH5R0CY	J	5.0p	50V Ceramic	AA	C3376	RC-EZ1274CEZZ	J	1000	16V Electrolytic	AD
C1925	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C3500	VCKYCY1HB682KY	J	6800p	50V Ceramic	AA
C1926	VCEASH1CN157MY	J	150	16V Electrolytic	AC	C3501	VCKYCY1HB682KY	J	6800p	50V Ceramic	AA
C1928	VCEASH1CN157MY	J	150	16V Electrolytic	AC	C3502	VCKYTV1CF105ZY	J	1	16V Ceramic	AB
C1929	VCEASH1CN157MY	J	150	16V Electrolytic	AC	C3503	VCKYTV1CF105ZY	J	1	16V Ceramic	AB
C1930	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA	C3504	VCEAPF1CW106MY	J	10	16V Electrolytic	AB
C1931	VCKYCY1HB561KY	J	560p	50V Ceramic	AA	C3505	VCEAPF1EW475MY	J	4.7	25V Electrolytic	AB
C1932	VCKYCY1HB561KY	J	560p	50V Ceramic	AA	C3506	VCEAPF1EW475MY	J	4.7	25V Electrolytic	AB
C1933	VCKYCY1HB562KY	J	5600p	50V Ceramic	AA	C3507	VCKYCY1EF104ZY	J	0.1	25V Ceramic	AA
C1935	RC-EZ1339CEZZY	J	220	16V Electrolytic	AD	C3508	VCEASH1CN157MY	J	150	16V Electrolytic	AC
C1936	VCEAPF1HW225MY	J	2.2	50V Electrolytic	AB	C3517	VCKYCY1EB223KY	J	0.022	25V Ceramic	AA
C1937	VCEAPF1HW225MY	J	2.2	50V Electrolytic	AB	C3518	VCKYCY1EB223KY	J	0.022	25V Ceramic	AA
C1938	VCEAPF1CW106MY	J	10	16V Electrolytic	AB	C3525	VCCCCY1HH101JY	J	100p	50V Ceramic	AA
C1939	VCKYTV1CF105ZY	J	1	16V Ceramic	AB	C3526	VCCCCY1HH101JY	J	100p	50V Ceramic	AA
					C3600	VCKYTV1CF105ZY	J	1	25V Ceramic	AD	

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>DUNTKB152DE07 (LC-13E1E)</b>					<b>DUNTKB152DE08 (LC-15E1E)</b>				
<b>TUNER UNIT (Continued)</b>									
C3601	VCKYTQ1EF105ZY	J 1	25V Ceramic	AD	R1671	VRS-CY1JF183FY	J 18k	1/16W Metal Oxide	AA
C3602	VCKYTQ1EF105ZY	J 1	25V Ceramic	AD	R1675	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA
C3603	VCKYTQ1EF105ZY	J 1	25V Ceramic	AD	R1683	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
C3900	VCCCCY1HH221JY	J 220p	50V Ceramic	AA	R1684	VRS-CY1JF333FY	J 33k	1/16W Metal Oxide	AA
C3901	VCCCCY1HH221JY	J 220p	50V Ceramic	AA	R1685	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C3902	VCCCCY1HH221JY	J 220p	50V Ceramic	AA	R1686	VRS-CY1JF472FY	J 4.7k	1/16W Metal Oxide	AA
C3903	VCCCCY1HH221JY	J 220p	50V Ceramic	AA	R1687	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA
C3954	VCEAPF1CW106MY	J 10	16V Electrolytic	AB	R1688	VRS-CY1JF223FY	J 22k	1/16W Metal Oxide	AA
C3955	VCEAPF1CW106MY	J 10	16V Electrolytic	AB	R1689	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA
C3956	VCCCCY1HH101JY	J 100p	50V Ceramic	AA	R1690	VRS-CY1JF183FY	J 18k	1/16W Metal Oxide	AA
C3957	VCCCCY1HH101JY	J 100p	50V Ceramic	AA	R1691	VRS-CY1JF472FY	J 4.7k	1/16W Metal Oxide	AA
C3958	VCEAPF1CW106MY	J 10	16V Electrolytic	AB	R1692	VRS-CY1JF333FY	J 33k	1/16W Metal Oxide	AA
C3959	VCEAPF1CW106MY	J 10	16V Electrolytic	AB	R1693	VRS-CY1JF223FY	J 22k	1/16W Metal Oxide	AA
C3960	VCEAPF1CW106MY	J 10	16V Electrolytic	AB	R1694	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C3961	VCEAPF1CW476MY	J 47	16V Electrolytic	AC	R1695	VRS-CY1JF183FY	J 18k	1/16W Metal Oxide	AA
C3962	VCEAPF1CW476MY	J 47	16V Electrolytic	AC	R1696	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C3995	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R1697	VRS-CY1JF223FY	J 22k	1/16W Metal Oxide	AA
C5001	VCKYCY1HB222KY	J 2200p	50V Ceramic	AA	R1698	VRS-CY1JF472FY	J 4.7k	1/16W Metal Oxide	AA
C5002	VCKYCY1HB222KY	J 2200p	50V Ceramic	AA	R1699	VRS-CY1JF333FY	J 33k	1/16W Metal Oxide	AA
<b>RESISTORS</b>					R1901	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R345	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1902	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R346	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1903	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R347	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1905	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R350	VRS-CY1JF392JY	J 3.9k	1/16W Metal Oxide	AA	R1906	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R351	VRS-CY1JF392JY	J 3.9k	1/16W Metal Oxide	AA	R1907	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R352	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1908	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R353	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	R1913	VRS-CY1JF105JY	J 1 M	1/16W Metal Oxide	AA
R354	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA	R1914	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA
R355	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1915	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA
R358	VRS-CY1JF123JY	J 12k	1/16W Metal Oxide	AA	R1916	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA
R1602	VRS-CY1JF202JY	J 2k	1/16W Metal Oxide	AA	R1917	VRS-CY1JF103FY	J 10k	1/16W Metal Oxide	AA
R1603	VRS-CY1JF202JY	J 2k	1/16W Metal Oxide	AA	R1918	VRS-CY1JF102FY	J 1k	1/16W Metal Oxide	AA
R1605	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA	R1919	VRS-CY1JF272FY	J 2.7k	1/16W Metal Oxide	AA
R1609	VRS-CY1JF681JY	J 680	1/16W Metal Oxide	AA	R1920	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA
R1610	VRS-TX2HF2R2JY	J 2.2	1/2W Metal Oxide	AB	R1921	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA
R1613	VRS-CY1JF132JY	J 1.3k	1/16W Metal Oxide	AG	R1923	VRS-CY1JF104JY	J 100k	1/16W Metal Oxide	AA
R1618	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1925	VRS-CY1JF104JY	J 100k	1/16W Metal Oxide	AA
R1620	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA	R1930	VRS-CY1JF153JY	J 15k	1/16W Metal Oxide	AA
R1621	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA	R1931	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA
R1622	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R1932	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA
R1626	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	R1933	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA
R1627	VRS-CY1JF102FY	J 1k	1/16W Metal Oxide	AA	R1934	VRS-CY1JF122JY	J 1.2k	1/16W Metal Oxide	AA
R1628	VRS-CY1JF681FY	R 680	1/16W Metal Oxide	AA	R1935	VRS-CY1JF122JY	J 1.2k	1/16W Metal Oxide	AA
R1629	VRS-CY1JF681FY	R 680	1/16W Metal Oxide	AA	R1936	VRS-CY1JF562JY	J 5.6k	1/16W Metal Oxide	AA
R1630	VRS-CY1JF102FY	J 1k	1/16W Metal Oxide	AA	R1937	VRS-CY1JF562JY	J 5.6k	1/16W Metal Oxide	AA
R1631	VRS-CY1JF472FY	J 4.7k	1/16W Metal Oxide	AA	R1938	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA
R1632	VRS-CY1JF472FY	J 4.7k	1/16W Metal Oxide	AA	R1939	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA
R1633	VRS-CY1JF472FY	J 4.7k	1/16W Metal Oxide	AA	R1941	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R1636	VRS-CY1JF333JY	J 33k	1/16W Metal Oxide	AA	R1942	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R1637	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA	R1943	VRS-CA1JF102JY	J 1k	1/16W Metal Oxide	AA
R1638	VRS-CY1JF332FY	J 3.3k	1/16W Metal Oxide	AA	R1944	VRS-CY1JF471JY	J 470	1/16W Metal Oxide	AA
R1639	VRS-CY1JF152FY	J 1.5k	1/16W Metal Oxide	AA	R1945	VRS-CY1JF471JY	J 470	1/16W Metal Oxide	AA
R1642	VRS-CY1JF221JY	J 220	1/16W Metal Oxide	AA	R1946	VRS-CY1JF102FY	J 1k	1/16W Metal Oxide	AA
R1643	VRS-CY1JF333JY	J 33k	1/16W Metal Oxide	AA	R1947	VRS-CY1JF272FY	J 2.7k	1/16W Metal Oxide	AA
R1644	VRS-CY1JF393FY	J 39k	1/16W Metal Oxide	AA	R1948	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA
R1650	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA	R1950	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA
R1651	VRS-CY1JF561JY	J 560	1/16W Metal Oxide	AA	R2200	VRS-TX2HF1R0JY	J 1	1/2W Metal Oxide	AB
R1652	VRS-CY1JF561JY	J 560	1/16W Metal Oxide	AA	R2201	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R1653	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R2202	VRS-CY1JF222JY	J 2.2k	1/16W Metal Oxide	AA
R1655	VRS-CY1JF221JY	J 220	1/16W Metal Oxide	AA	R2203	VRS-CY1JF222JY	J 2.2k	1/16W Metal Oxide	AA
R1656	VRS-CY1JF221JY	J 220	1/16W Metal Oxide	AA	R2204	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R1659	VRS-CY1JF222JY	J 2.2k	1/16W Metal Oxide	AA	R2205	VRS-CY1JF221JY	J 220	1/16W Metal Oxide	AA
R1661	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA	R2206	VRS-CY1JF152JY	J 1.5k	1/16W Metal Oxide	AA
R1662	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R2207	VRS-CY1JF681JY	J 680	1/16W Metal Oxide	AA
R1663	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R2208	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R1664	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R2209	VRS-CY1JF181JY	J 180	1/16W Metal Oxide	AA
R1665	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	R2210	VRS-CY1JF561JY	J 560	1/16W Metal Oxide	AA
R1668	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA	R2211	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R1669	VRS-CB1JF332JY	J 3.3k	1/16W Metal Oxide	AC	R2212	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA
R1670	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA	R2213	VRS-CY1JF221JY	J 220	1/16W Metal Oxide	AA
					R2214	VRS-CY1JF152JY	J 1.5k	1/16W Metal Oxide	AA
					R2215	VRS-CY1JF222JY	J 2.2k	1/16W Metal Oxide	AA
					R2216	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
					R2217	VRS-CY1JF222JY	J 2.2k	1/16W Metal Oxide	AA
					R2218	VRS-CY1JF221JY	J 220	1/16W Metal Oxide	AA



Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>DUNTKB152DE07 (LC-13E1E)</b> <b>DUNTKB152DE08 (LC-15E1E)</b> <b>TUNER UNIT (Continued)</b>					R3969	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R2219	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	R3970	VRS-CY1JF271JY	J 270	1/16W Metal Oxide	AA
R2221	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	R3971	VRS-CY1JF271JY	J 270	1/16W Metal Oxide	AA
R2222	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	R3972	VRS-CY1JF104JY	J 100k	1/16W Metal Oxide	AA
R2223	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	R3973	VRS-CY1JF104JY	J 100k	1/16W Metal Oxide	AA
R2224	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	R3986	VRS-CY1JF104JY	J 100k	1/16W Metal Oxide	AA
R2225	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	R3987	VRS-CY1JF562JY	J 5.6k	1/16W Metal Oxide	AA
R2226	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	R3989	VRS-CY1JF153JY	J 15k	1/16W Metal Oxide	AA
R2227	VRS-CY1JF471JY	J 470	1/16W Metal Oxide	AA	R3991	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R2228	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA	R3992	VRS-CY1JF104JY	J 100k	1/16W Metal Oxide	AA
R2229	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA	R3993	VRS-CY1JF104JY	J 100k	1/16W Metal Oxide	AA
R2230	VRS-TX2HF471JY	J 470	1/2W Metal Oxide	AB	R3994	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA
R2231	VRS-TW2ED000JY	J 0	1/4W Metal Oxide	AB	R3995	VRS-CY1JF823JY	J 82k	1/16W Metal Oxide	AA
R3100	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	R3996	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R3356	VRS-CY1JF153JY	J 15k	1/16W Metal Oxide	AA	R3997	VRS-CY1JF104JY	J 100k	1/16W Metal Oxide	AA
R3357	VRS-TX2HF000JY	J 0	1/2W Metal Oxide	AB	R3998	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R3358	VRS-CY1JF562JY	J 5.6k	1/16W Metal Oxide	AA	R5001	VRS-TX2HF220JY	J 22	1/2W Metal Oxide	AB
R3360	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	R5002	VRS-TX2HF220JY	J 22	1/2W Metal Oxide	AB
R3361	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	R5003	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R3362	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	R5705	VRS-TQ2BD750JY	J 75	1/8W Metal Oxide	AA
R3363	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	R5706	VRS-TQ2BD750JY	J 75	1/8W Metal Oxide	AA
R3364	VRS-CY1JF122JY	J 1.2k	1/16W Metal Oxide	AA	R5707	VRS-TQ2BD750JY	J 75	1/8W Metal Oxide	AA
R3365	VRS-CY1JF682JY	J 6.8k	1/16W Metal Oxide	AA	R5708	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA
		(LC-15E1E)			R5709	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA
R3365	VRS-CY1JF822JY	J 8.2k	1/16W Metal Oxide	AA	R5710	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
		(LC-13E1E)			R5711	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R3366	VRS-CY1JF682JY	J 6.8k	1/16W Metal Oxide	AA	R5712	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
		(LC-15E1E)			R5713	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
R3366	VRS-CY1JF822JY	J 8.2k	1/16W Metal Oxide	AA	R5714	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
		(LC-13E1E)			R5715	VRD-RA2BE123JY	J 12k	1/8W Carbon	AA
R3368	VRS-CR3AD1R0JY	J 1	1W Metal Oxide	AC	<b>MISCELLANEOUS PARTS</b>				
R3370	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA	△ F1	QFS-C1223CEZZ	J	Fuse, 1.25A/250V	AD
R3371	VRS-CY1JF682JY	J 6.8k	1/16W Metal Oxide	AA	△ F2	QFS-C1223CEZZ	J	Fuse, 1.25A/250V	AD
R3372	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA	FH1	QFSHD1002CEZZ	J	Fuse Holder	AA
R3373	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	FH2	QFSHD1002CEZZ	J	Fuse Holder	AA
R3374	VRS-TX2HF000JY	J 0	1/2W Metal Oxide	AB	FH3	QFSHD1002CEZZ	J	Fuse Holder	AA
R3401	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	FH4	QFSHD1002CEZZ	J	Fuse Holder	AA
R3433	VRS-CY1JF750JY	J 75	1/16W Metal Oxide	AA	FB1601	RBLN-0006TAZZY	J	Ferrite Bead	AB
R3455	VRS-CY1JF750JY	J 75	1/16W Metal Oxide	AA	FB1602	RBLN-0006TAZZY	J	Ferrite Bead	AB
R3456	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA	FB1604	RBLN-0006TAZZY	J	Ferrite Bead	AB
R3457	VRS-CY1JF750JY	J 75	1/16W Metal Oxide	AA	FB1605	RBLN-0006TAZZY	J	Ferrite Bead	AB
R3458	VRS-CY1JF104JY	J 100k	1/16W Metal Oxide	AA	FB1608	RBLN-0006TAZZY	J	Ferrite Bead	AB
R3459	VRS-CY1JF750JY	J 75	1/16W Metal Oxide	AA	FB1609	RBLN-0006TAZZY	J	Ferrite Bead	AB
R3460	VRS-CY1JF750JY	J 75	1/16W Metal Oxide	AA	FB1640	RBLN-0076TAZZY	J	Ferrite Bead	AC
R3461	VRS-CY1JF750JY	J 75	1/16W Metal Oxide	AA	FB1641	RBLN-0076TAZZY	J	Ferrite Bead	AC
R3491	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	FB1672	RBLN-0076TAZZY	J	Ferrite Bead	AC
R3492	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	FB1673	RBLN-0076TAZZY	J	Ferrite Bead	AC
R3494	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA	FB1674	RBLN-0076TAZZY	J	Ferrite Bead	AC
R3500	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	FB5001	RBLN-0062CEZZY	J	Ferrite Bead	AC
R3501	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA	FB5002	RBLN-0062CEZZY	J	Ferrite Bead	AC
R3504	VRS-CY1JF122JY	J 1.2k	1/16W Metal Oxide	AA	J3702	QJAKE0193CEZZ	J	POWER INPUT	AK
R3505	VRS-CY1JF682JY	J 6.8k	1/16W Metal Oxide	AA	J3902	QJAKE0200CE02	J	AUDIO OUT(R)	AE
R3506	VRS-CY1JF122JY	J 1.2k	1/16W Metal Oxide	AA	J3903	QJAKE0200CE09	J	AUDIO OUT(L)	AE
R3507	VRS-CY1JF682JY	J 6.8k	1/16W Metal Oxide	AA	J5001	QJAKF0060CEZZ	J	AUDIO(L)/(R)(AV-IN2)	AE
R3508	VRS-CY1JF471JY	J 470	1/16W Metal Oxide	AA	J5002	QJAKE0200CE04	J	VIDEO(AV-IN2)	AE
R3509	VRS-CY1JF471JY	J 470	1/16W Metal Oxide	AA	J5003	QJAKJ0047CEZZ	J	Jack, Headphones	AD
R3510	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA	P1903	QPLGN1178GEZZ	J	Plug, 11-pin(MB)	AC
R3511	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA	P3301	QPLGN0174FJZZY	J	Plug, 2-pin(SL)	AC
R3512	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA	P3302	QPLGN0174FJZZY	J	Plug, 2-pin(SR)	AC
R3513	VRS-CY1JF153JY	J 15k	1/16W Metal Oxide	AA	P3601	QPLGN0478GEZZ	J	Plug, 4-pin	AB
R3600	VRS-CB1JF222JY	J 2.2k	1/16W Metal Oxide	AC	P3603	QPLGN0378GEZZ	J	Plug, 3-pin(VE)	AB
R3604	VRS-CB1JF824JY	J 820k	1/16W Metal Oxide	AC	P3703	QLUGHA001WJZZY	J	Lug	AD
R3607	VRS-CB1JF562JY	J 5.6k	1/16W Metal Oxide	AC	SC1602	QSOCN0487FJZZY	J	Socket, 20-pin(MT)	AE
R3610	VRS-CY1JF563JY	J 56k	1/16W Metal Oxide	AA	SC3100	QSOCN0464FJZZY	J	Socket, 50-pin(MA)	AH
R3650	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA	SC3903	QSOCZA012WJZZ	J	AV-IN1(21-pin Euro-SCART)	AG
R3962	VRS-CY1JF123JY	J 12k	1/16W Metal Oxide	AA	SC5001	QSOCDO456CEZZ	J	S-VIDEO(AV-IN2)	AE
R3963	VRS-CY1JF123JY	J 12k	1/16W Metal Oxide	AA		LANGT9102CEFW	J	Fixing Metal	AF
R3964	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA		PSLDCA005WJZZ	J	Shield	AC
R3965	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA		QCNW-A890WJZZ	J	Connecting Cord	AC
R3966	VRS-CY1JF271JY	J 270	1/16W Metal Oxide	AA					
R3967	VRS-CY1JF271JY	J 270	1/16W Metal Oxide	AA					
R3968	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA					

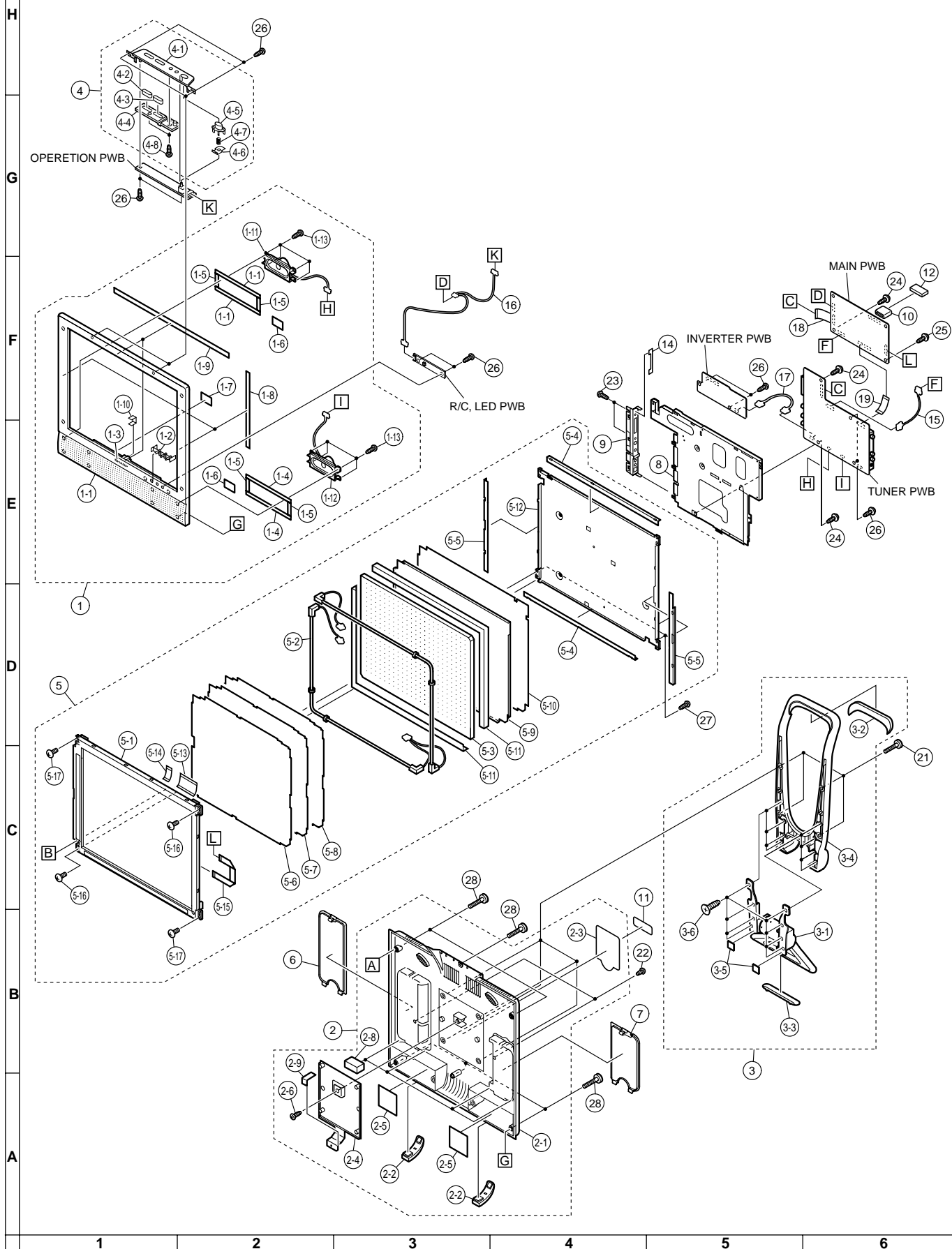
Ref. No.	Part No.	★	Description	Code
<b>DUNTKB153DE07 (LC-13E1E)</b> <b>DUNTKB153DE08 (LC-15E1E)</b> <b>INVERTER UNIT</b>				
<b>TRANSISTORS</b>				
Q6500	VSFZT1053A/-1Y	J	FZT1053A	AG
Q6501	VSFZT1053A/-1Y	J	FZT1053A	AG
Q6502	VS2SA1530AR-1Y	J	2SA1530AR	AB
Q6503	VSFZT1053A/-1Y	J	FZT1053A	AG
Q6504	VSFZT1053A/-1Y	J	FZT1053A	AG
Q6505	VS2SA1530AR-1Y	J	2SA1530AR	AB
<b>DIODES</b>				
D6500	VHdiMN10///-1Y	J	Diode	AB
<b>COILS</b>				
L6500	RCiLC0107CEZZY	J	Coil	AF
L6501	RCiLC0107CEZZY	J	Coil	AF
L6502	RCiLC0107CEZZY	J	Coil	AF
L6503	RCiLC0107CEZZY	J	Coil	AF
<b>TRANSFORMER</b>				
△ T6500	RTRNZ0805CEZZQ	J	Transformer	AM
△ T6501	RTRNZ0805CEZZQ	J	Transformer	AM
△ T6502	RTRNZ0805CEZZQ	J	Transformer	AM
△ T6503	RTRNZ0805CEZZQ	J	Transformer	AM
<b>CAPACITORS</b>				
C6502	VCKYCY1CB473KY	J	0.047 16V Ceramic	AA
C6503	VCKYCY1CB473KY	J	0.047 16V Ceramic	AA
C6504	VCEA4A1CN108M	J	1000 16V Electrolytic	AD
C6507	VCKYCY1CB473KY	J	0.047 16V Ceramic	AA
C6508	VCKYCY1CB473KY	J	0.047 16V Ceramic	AA
C6509	VCEA4A1CN108M	J	1000 16V Electrolytic	AD
C6510	RC-FZA034WJZZ	J	0.15 250V Film	AE
C6511	RC-FZA034WJZZ	J	0.15 250V Film	AE
<b>RESISTORS</b>				
R6500	VRS-TW2ED332JY	J	3.3k 1/4W Metal Oxide	AB
R6501	VRS-TW2ED332JY	J	3.3k 1/4W Metal Oxide	AB
R6502	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R6503	VRS-CY1JF333JY	J	33k 1/16W Metal Oxide	AA
R6504	VRS-TW2ED332JY	J	3.3k 1/4W Metal Oxide	AB
R6505	VRS-TW2ED332JY	J	3.3k 1/4W Metal Oxide	AB
R6506	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R6507	VRS-CY1JF333JY	J	33k 1/16W Metal Oxide	AA
<b>MISCELLANEOUS PARTS</b>				
△ F6500	QFS-C1223CEZZ	J	Fuse, 1.25A/250V	AD
△ F6501	QFS-C1223CEZZ	J	Fuse, 1.25A/250V	AD
FH6500	QFSDH1002CEZZ	J	Fuse Holder	AA
FH6501	QFSDH1002CEZZ	J	Fuse Holder	AA
FH6502	QFSDH1002CEZZ	J	Fuse Holder	AA
FH6503	QFSDH1002CEZZ	J	Fuse Holder	AA
P6500	QPLGN0155FJZZY	J	Plug, 3-pin	AE
P6501	QPLGN0155FJZZY	J	Plug, 3-pin	AE
P6502	QPLGN0378GEZZ	J	Plug, 3-pin (VE)	AB

Ref. No.	Part No.	★	Description	Code
<b>DUNTKB155DE07 (LC-13E1E)</b> <b>DUNTKB155DE08 (LC-15E1E)</b> <b>R/C, LED UNIT</b>				
<b>TRANSISTORS</b>				
Q4001	VSDTC144EE/-1Y	J	DTC144EE	AA
Q4003	VSDTC144EE/-1Y	J	DTC144EE	AA
Q4007	VSUMG4N++++-1Y	J	UMG4N++++	AB
<b>DIODES</b>				
D4011	RH-PX0419CEZZY	J	Remote Sensor Indicator	AC
D4012	RH-EX1271CEZZY	J	Zener Diode	AB
D4014	RH-PX0421CEZZY	J	Power/Standby Indicator	AD
D4015	RH-EX1271CEZZY	J	Zener Diode	AB
D4022	RH-EX1271CEZZY	J	Zener Diode	AB
<b>CAPACITORS</b>				
C4018	RC-KZ1025CEZZY	J	1 10V Ceramic	AB
<b>RESISTORS</b>				
R4001	VRS-CY1JF562JY	J	5.6k 1/16W Metal Oxide	AA
R4021	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R4023	VRS-CY1JF472JY	J	4.7k 1/16W Metal Oxide	AA
R4024	VRS-CY1JF471JY	J	470 1/16W Metal Oxide	AA
R4029	VRS-CY1JF472JY	J	4.7k 1/16W Metal Oxide	AA
<b>MISCELLANEOUS PARTS</b>				
RMC4002	RRMCU0239CEZZ	J	R/C Receiver	AG
P4004	QPLGN0564TAZZY	J	Plug, 5-pin(MR)	AC

Ref. No.	Part No.	★	Description	Code
<b>DUNTKB156DE07 (LC-13E1E)</b>				
<b>DUNTKB156DE08 (LC-15E1E)</b>				
<b>OPERATION UNIT</b>				
<b>DIODES</b>				
D4008	RH-EX1283CEZZY	J	Zener Diode	AB
D4009	RH-EX1271CEZZY	J	Zener Diode	AB
D4010	RH-EX1271CEZZY	J	Zener Diode	AB
<b>RESISTORS</b>				
R4005	VRS-CY1JF123JY	J	12k 1/16W Metal Oxide	AA
R4006	VRS-CY1JF822JY	J	8.2k 1/16W Metal Oxide	AA
R4011	VRS-CY1JF123JY	J	12k 1/16W Metal Oxide	AA
R4012	VRS-CY1JF822JY	J	8.2k 1/16W Metal Oxide	AA
<b>SWITCHES</b>				
S4701	QSW-P0035GEZZ	J	MAIN POWER	AF
SW4002	QSW-K0108CEZZY	J	CH(▼)	AD
SW4003	QSW-K0108CEZZY	J	CH(▲)	AD
SW4004	QSW-K0108CEZZY	J	MENU	AD
SW4006	QSW-K0108CEZZY	J	TV/VIDEO	AD
SW4007	QSW-K0108CEZZY	J	VOL.(+)	AD
SW4008	QSW-K0108CEZZY	J	VOL.(−)	AD
<b>MISCELLANEOUS PARTS</b>				
P4001	QPLGN0564TAZZY	J	Plug, 5-pin(MS)	AC

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>CABINET AND MECHANICAL PARTS</b>									
<b>MODEL LC-13E1E</b>									
1	CCABAA091WJ01	J	Cabinet A Ass'y	BG	15	QCNW-A302WJZZ	J	Connecting Cord(MB)	AG
1-1	<i>Not Available</i>	—	Cabinet	—	16	QCNW-A305WJZZ	J	Connecting Cord(MS/VE)	AH
1-2	GCOVA2020CEZZ	J	R/C, LED Cover	AF	17	QCNW-A385WJZZ	J	Connecting Cord(VE)	AE
1-3	<i>Not Available</i>	—	Badge, "SHARP"	—	18	QCNW-A386WJZZ	J	Connecting Cord(MA)	AD
1-4	PSPAGA031WJZZ	J	Spacer, x4	AB	19	QCNW-A653WJZZ	J	Connecting Cord(MT)	AD
1-5	PSPAGA033WJZZ	J	Spacer, x4	AB	21	LX-BZ3442CEFF	J	Screw, x4	AB
1-6	PSPAHA073WJZZ	J	Spacer, x2	AB	22	XBBSF30P05000	J	Screw, x2	AB
1-7	PSPAHA0623CEZZ	J	Spacer, x1	AD	23	XBBSF30P08000	J	Screw, x2	AA
1-8	PSPAHA0606CEZZ	J	Spacer, x2	AB	24	XBPSN30P09JS0	J	Screw, x3	AB
1-9	PSPAHA0719CEZZ	J	Spacer, x2	AC	25	XEBSD30P06000	J	Screw, x1	AA
1-10	QEARZ0047CEZZ	J	Earthe Angle	AC	26	XEBSD30P08000	J	Screw, x10	AA
1-11	VSP7530PB588B	J	Speaker(L)	AQ	27	XEBSD30P12000	J	Screw, x2	AA
1-12	VSP7530PB598B	J	Speaker(R)	AQ	28	XEBSD30P20000	J	Screw, x6	AB
1-13	XEBSD30P08000	J	Screw, x6	AA	29	XWHJZ32-05080	J	Washer, x1	AB
2	CCABBA057WJ01	J	Cabinet B Ass'y	BA					
2-1	<i>Not Available</i>	—	Cabinet B	—					
2-2	GLEGGA009WJSA	J	Leg, x2	AG					
2-3	HiNDPA109WJSA	J	Model Label	AG					
2-4	LANGTA013WJFW	J	Reinforcement Angle	AN					
2-5	PSPAGA043WJZZ	J	Spacer, x2	AC					
2-6	XEBSD30P08000	J	Screw, x1	AA					
3	CDAi-A021WJ01	J	Stand Ass'y	BF					
3-1	<i>Not Available</i>	—	Stand, Base	—					
3-2	GCOVA1945CESA	J	Stand Grip	AK					
3-3	GLEGGA004WJSA	J	Leg, x1	AH					
3-4	JHNDP0105CESA	J	Stand Handle	AW					
3-5	PSPA0415CEZZ	J	Cushion Spacer, x2	AB					
3-6	XESSN40P10000	J	Screw, x8	AB					
4	CCOVAA126WJ01	J	Top Cover Ass'y	AR					
4-1	<i>Not Available</i>	—	Top Cover	—					
4-2	GCOVA1943CEKA	J	Button Cover(VOL)	AD					
4-3	GCOVA1943CEKB	J	Button Cover(CH)	AD					
4-4	JBTN-A012WJKA	J	Operation Button	AE					
4-5	JBTN-2076CEKA	J	Power Button	AE					
4-6	LHLDZA027WJKZ	J	Power Button Holder	AE					
4-7	MSPRCA008WJFW	J	Power Button Spring	AB					
4-8	XEBSD30P08000	J	Screw, x2	AA					
5	<i>Not Available</i>	—	13" LCD Panel Unit Ass'y	—					
5-1	RLCDA012WJZZ	J	13" LCD Panel	CV					
△ 5-2	KLMP-0120CEZZ	J	Lamp Unit	BD					
5-3	PGIDM0069CEZZ	J	Light Guide Panel	AZ					
5-4	PMiR-0292CEZZ	J	Reflection Mirror, x2	AG					
5-5	PMiR-0293CEZZ	J	Reflection Mirror, x2	AF					
5-6	PSHEP0276CEZZ	J	Reflection/Deflection Sheet	BB					
5-7	PSHEP0277CEZZ	J	Prism Sheet	AV					
5-8	PSHEP0278CEZZ	J	Diffusion Sheet	AL					
5-9	PSHEP0279CEZZ	J	Lamp Reflection Sheet-1	AG					
5-10	PSHEP0280CEZZ	J	Lamp Reflection Sheet-2	AG					
5-11	PSHEP0306CEZZ	J	Lamp Reflection Sheet (Cover), x2	AC					
5-12	PSLDM024WJFW	J	Shielding Plate	AQ					
5-13	QCNW-6068CEZZ	J	Connecting Cord (LS)	AD					
5-14	QCNW-6065CEZZ	J	Connecting Cord (LK)	AC					
5-15	QCNW-6066CEZZ	J	Connecting Cord (LG)	AE					
5-16	XBBSD30P05000	J	Screw, x2	AA					
6	GCOVAA078WJKA	J	Terminal Cover(L)	AL					
7	GCOVAA079WJKA	J	Terminal Cover(S)	AH					
8	GCOVA2118CEKA	J	Chassis Frame	AG					
9	GCOVAA128WJKA	J	Chassis Frame Cover	AP					
10	RCORFA009WJZZ	J	Core	AH					
11	TLABNA071WJZZ	J	Serial No. Label (LC-13E1E)	AC					
11	TLABNA072WJZZ	J	Serial No. Label (LC-13E1E(K))	AC					
12	PSPAGA033WJZZ	J	Spacer, x1	AB					
14	LANGK0782CEFW	J	Fixing Metal	AF					

# CABINET AND MECHANICAL PARTS





Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>CABINET AND MECHANICAL PARTS</b>									
<b>MODEL LC-15E1E</b>									
1	CCABAA089WJ01	J	Cabinet A Ass'y	BH	14	LANGK0782CEFW	J	Fixing Metal	AF
1-1	Not Available	—	Cabinet A	—	15	QCNW-A302WJZZ	J	Connecting Cord(MB)	AG
1-2	GCOVA2020CEZZ	J	R/C, LED Cover	AF	16	QCNW-A305WJZZ	J	Connecting Cord(MS/VE)	AH
1-3	Not Available	—	Badge, "SHARP"	—	17	QCNW-A385WJZZ	J	Connecting Cord(VE)	AE
1-4	PSPAGA034WJZZ	J	Spacer, x4	AA	18	QCNW-A386WJZZ	J	Connecting Cord(MA)	AD
1-5	PSPAGA035WJZZ	J	Spacer, x4	AA	19	QCNW-A300WJZZ	J	Connecting Cord(MT)	AC
1-7	PSPAHA073WJZZ	J	Spacer, x1	AB	21	LX-BZ3442CEFF	J	Screw, x4	AB
1-8	PSPAHA051WJZZ	J	Spacer, x2	AC	22	XBBSF30P05000	J	Screw, x2	AB
1-9	PSPAHA050WJZZ	J	Spacer, x2	AC	23	XBBSF30P08000	J	Screw, x4	AA
1-10	QEARZ0047CEZZ	J	Earth Angle	AC	24	XBPSN30P09JS0	J	Screw, x3	AB
1-11	VSP7530PB588B	J	Speaker(L)	AQ	25	XEBSD30P06000	J	Screw, x1	AA
1-12	VSP7530PB598B	J	Speaker(R)	AQ	26	XEBSD30P08000	J	Screw, x10	AA
1-13	XEBSD30P08000	J	Screw, x6	AA	27	XEBSD30P12000	J	Screw, x2	AA
1-14	XEBSD30P08000	J	Screw, x2	AA	28	XEBSD30P20000	J	Screw, x6	AB
					29	XWHJZ32-05080	J	Washer, x1	AB
					30	XEBSD30P06000	J	Screw, x1	AA
2	CCABBA055WJ01	J	Cabinet B Ass'y	BB					
2-1	Not Available	—	Cabinet B	—					
2-2	GLEGGA008WJSA	J	Leg, x2	AF					
2-3	HiNDPA107WJSA	J	Model Label	AG					
2-4	LANGT9061CEFW	J	Reinforcement Angle	BD					
2-5	PSPAGA043WJZZ	J	Spacer, x2	AC					
2-6	XEBSD30P08000	J	Screw, x1	AA					
2-8	PMLT-A039WJZZ	J	Light Shielding Spacer, x4						
2-9	PSPAHA060WJKZ	J	Spacer, x1	AB					
3	CDAi-A023WJ01	J	Stand Ass'y	BF					
3-1	Not Available	—	Stand, Base	—					
3-2	GCOVA1945CESA	J	Stand Grip	AK					
3-3	GLEGGA004WJSA	J	Leg, x1	AH					
3-4	JHNDP0105CESA	J	Stand Handle	AW					
3-5	PSPAZ0415CEZZ	J	Cushion Spacer, x2	AB					
3-6	XESSN40P10000	J	Screw, x8	AB					
4	CCOVAA126WJ01	J	Top Cover Ass'y	AR					
4-1	Not Available	—	Top Cover	—					
4-2	GCOVA1943CEKA	J	Button Cover(VOL)	AD					
4-3	GCOVA1943CEKB	J	Button Cover(CH)	AD					
4-4	JBTN-A012WJKA	J	Operation Button	AE					
4-5	JBTN-2076CEKA	J	Power Button	AE					
4-6	LHLDZA027WJKZ	J	Power Button Holder	AE					
4-7	MSPRCA008WJFW	J	Power Button Spring	AB					
4-8	XEBSD30P08000	J	Screw, x2	AA					
5	Not Available	—	15" LCD Panel Unit Ass'y	—					
5-1	RLCDA013WJZZ	J	15" LCD Panel Unit	DB					
△ 5-2	KLMP-0122CEZZ	J	Lamp Unit	BD					
5-3	PGIDM0070CEZZ	J	Light Guide Panel	BA					
5-4	PMiR-0294CEZZ	J	Reflection Mirror, x2	AG					
5-5	PMiR-0295CEZZ	J	Reflection Mirror, x2	AF					
5-6	PSHEP0281CEZZ	J	Reflection/Deflection Sheet	BE					
5-7	PSHEP0282CEZZ	J	Prism Sheet	AY					
5-8	PSHEP0283CEZZ	J	Diffusion Sheet	AL					
5-9	PSHEP0284CEZZ	J	Lamp Reflection Sheet-1	AG					
5-10	PSHEP0285CEZZ	J	Lamp Reflection Sheet-2	AG					
5-11	PSHEP0307CEZZ	J	Lamp Reflection Sheet (Cover), x2	AC					
5-12	PSLDM4689CEFW	J	Shielding Plate	AR					
5-13	QCNW-6064CEZZ	J	Connecting Cord (LS)	AD					
5-14	QCNW-6065CEZZ	J	Connecting Cord (LK)	AC					
5-15	QCNW-A069WJZZ	J	Connecting Cord (LG)	AF					
5-16	XBBSD30P05000	J	Screw, x2	AA					
5-17	XBBSD30P05000	J	Screw, x2	AA					
6	GCOVAA082WJKA	J	Terminal Cover(S)	AH					
7	GCOVAA083WJKA	J	Terminal Cover(L)	AK					
8	GCOVA2116CEKA	J	Chassis Frame	AP					
9	GCOVA2118CEKA	J	Chassis Frame Cover	AG					
10	RCORFA009WJZZ	J	Core	AH					
11	TLABNA068WJZZ	J	Serial No. Label (LC-15E1E)	AC					
11	TLABNA069WJZZ	J	Serial No. Label (LC-15E1E(K))	AC					

Ref. No.	Part No.	★	Description	Code
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## SUPPLIED ACCESSORIES

△	LHLDW0109CESA	J	Cable Clamp, x1	AD
	QACCK0006TAZZ	J	AC Cord	AL
			(LC-13E1E/15E1E)	
△	QACCK0016TAZZ	J	AC Cord	AV
			(LC-13E1E(K)/15E1E(K))	
	RRMCGA074WJSA	J	Infrared R/C Unit	AU
	TiNS-A140WJZZ	J	Operation Manual	BA
△	UADP-A007WJPZ	J	AC Adapter	BG
	TGAN-1688CEN1	J	Guarantee Card	AN
			(LC-13E1E(K)/15E1E(K))	

Ref. No.	Part No.	★	Description	Code
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## PACKING PARTS (NOT REPLACEMENT ITEM)

### LC-13E1E

SPAKCA161WJZZ	—	Packing Case	—
SPAKFA092WJZZ	—	Buffer Material (Top)	—
SPAKFA095WJZZ	—	Packing Case,	—
		for Accessories	
SPAKPA076WJZZ	—	Wrapping Paper	—
SPAKXA058WJZZ	—	Buffer Material (Bottom)	—
SSAKA0160CEZZ	—	Polyethylene Bag	—
TLABK0001TAZZ	—	No. Label	—

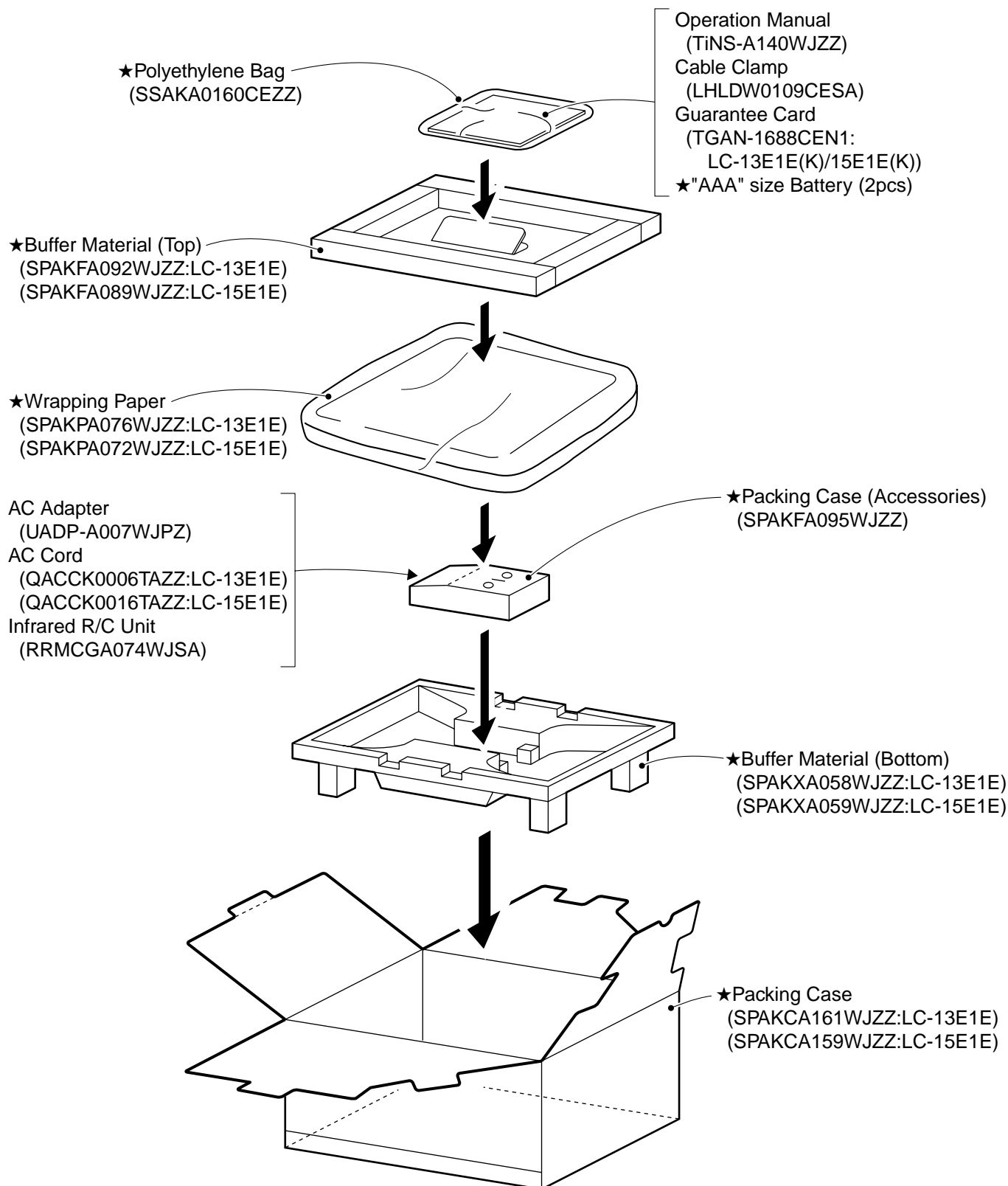
### LC-15E1E

SPAKCA159WJZZ	—	Packing Case	—
SPAKFA089WJZZ	—	Buffer Material (Top)	—
SPAKFA095WJZZ	—	Packing Case,	—
		for Accessories	
SPAKPA072WJZZ	—	Wrapping Paper	—
SPAKXA059WJZZ	—	Buffer Material (Bottom)	—
SSAKA0160CEZZ	—	Polyethylene Bag	—
TLABK0001TAZZ	—	No. Label	—

## SERVICE JIGS (USE FOR SERVICING)

QCNW-A369WJZZ	J	Extention Cable 50-pin	AT
		Main (SC2001)-Tuner (SC3100)	
QCNW-A370WJZZ	J	Extention Cable 13-pin	AT
		Main (SC2002)-Tuner (SC1602)	
QCNW-A371WJZZ	J	Extention Cable 11-pin	AW
		Main (P3702)-Tuner (P1903)	

## PACKING OF THE SET



★Not Replacement Item

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